

SHELLS AND SEA LIFE

Vol. 18, No. 1

ISSN 0747-6078

1701 Hyland St.

Bayside, CA 95524

January, 1986

\$2.50

Resubscribe Dec85
Smithsonian Institution
Library - Acquisitions
10th St and Constitution Av NW
Washington, DC 20560

3

GL
430.4
O 616
Moll.



Santa Barbara Shell Show, 1985, Class K (Amateur, small exhibit), 1st Place, Jack Gilbody. "The Six Classes of the Phylum Mollusca"

This Month's Shows - see page 12

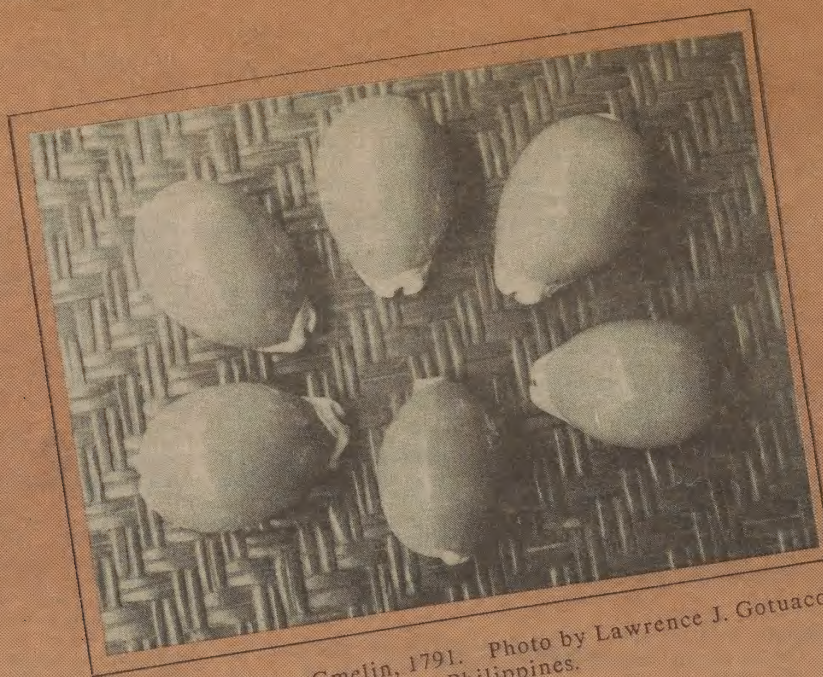
BROWARD

NAPLES

ST. PETERSBURG

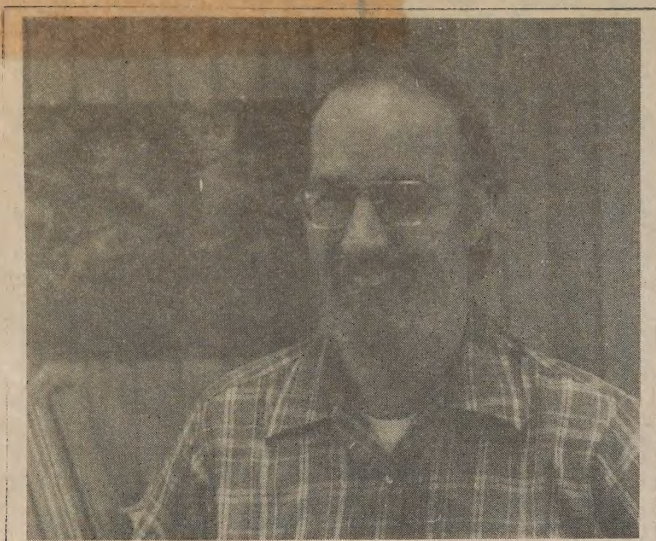
SARASOTA

and more!



Cypraea aurantium Gmelin, 1791. Photo by Lawrence J. Gotuaco,
777 Paseo de Roxes, Manila, Philippines.

Our 199th issue — Published monthly since 1969.



Donations to help us continue and grow are always welcome. We will recognize those people who help in the following way. Friends subscribe for \$100.00 per year. Sponsors subscribe for \$250.00 per year. Benefactors subscribe for \$500.00 per year. Patrons subscribe for \$1000.00 or more per year. Subscribers for each of these categories will be listed (unless you request anonymity) periodically. Larger donations will have an issue of Shells and Sea Life dedicated to their name.

Gift subscriptions are always available at a five dollar discount off the current subscription rate. Students and senior citizens also receive the same discount. Life Subscriptions are \$500 each. There are many institutions and schools around the world which cannot subscribe but should be receiving Shells and Sea Life. You are always welcome to gift a subscription to a specific person or organization, or let us decide where your gift will do the most good. In any case, your beneficiary will receive a card recognizing your gift.

January and February are the months for Florida shell shows and we hope that everyone will have a chance to see our publication there. Our apologies for not having more shell dealer ads for you in this issue — we have not had time to set them up. If you see your favorite here please tell them so — if they are not here please ask them why not.

Best regards,

Steve

EDITOR'S NOTES

Here we go with volume 18 and our 199th issue. I appreciate the lessons in grammar provided by friends and will try not to repeat the same errors. I am certain to find sufficient new errors to keep everyone busy. It IS nice to know that some people read my ramblings (the last ones written about 3am the night before printing.)

It seems to be time to reiterate the basics of Shells and Sea Life. The magazines are produced wholly by Sally and me. We both quit our regular jobs! and are making this our life work. We do typesetting, layout, and mailing with occasional help from our two kids — Kristin and Jonathan. The Arcata Union, which will be 100 years old this June, does our printing for us. No one else is directly connected with Shells and Sea Life, although we are grateful to the many people who contribute articles and information.

When Tom Rice's Of Sea and Shore magazine failed, we decided to support conchology by publishing our own magazine, Shells and Sea Life, and providing the advertiser's and subscribers with equivalent advertising space and subscription issues for which they had paid Tom. We have at no time received any compensation for this — we haven't asked for any! It hurts a great deal when an advertiser or subscriber complains about how we are fulfilling Of Sea and Shore's obligations! Tom Rice's only association with Shells and Sea Life is submitting articles. He continues with his other Of Sea and Shore Publications and his Of Sea and Shore Museum.

With this issue, we have sent up to four year's worth of subscription issues to Of Sea and Shore subscribers FREE. We hope that you will now start to support us for our efforts over the past months. I have published 199 editions of this magazine over seventeen-plus years and intend to continue for many more years. I am not aware of any malacological publication in the world which has continued longer with the same editor.

We have continually added space and photographs to the magazine before we received the subscriptions and advertising revenues so that Shells and Sea Life can be the most useful to all of you! Help us -- we need your subscriptions, your articles and notes, and your advertising. We are not supported by any club or institution. Subscription now costs less than nine cents per page delivered to your door and must pay all of our expenses to continue and grow.

All independent publications require advertising revenue to function. We have been including a large section of book advertising as the only way to compensate for less-than-adequate advertising revenue from other sources. We also know that many of our readers are desperately searching for the books we include in our listings. Less than one-third of the magazine is advertising while most publications include up to fifty per-cent or more! Our advertising percentages are much more similar to Hawaiian Shell News and other "non-profit" publications.

In Memoriam

We have lost several friends in the past month or so. Their contributions to conchology will be sorely missed and our sympathies go out to their family and friends.

A. MYRA KEEN
TED PHILLIPS
RUTH & BEN PURDY
RAY UPTON

Editorial Staff

Managing Editor Steven J. Long
Assistant Editor Sally Long

Editorial Review Board

R. Tucker Abbott David W. Behrens
Hans Bertsch Kerry B. Clark
Walter O. Cernohorsky Malcolm Edmunds
Eugene V. Coan Terrence Gosliner
Michael T. Ghiselin James R. Lance
George L. Kennedy T.E. Thompson
William G. Lyons

Regular Contributors

Roland Anderson, David W. Behrens, Hans Bertsch, Donald Dan, Ed Degginer, David DeLucia, Wesley M. Farmer, Richard Goldberg, Susan J. Hewitt, David K. Mulliner, Stephanie Prince, Bob Purtymun, Thomas C. Rice, I.S. Roginskaya, Walter R. Sage, III, Donald R. Shasky, Emily H. Vokes

Patron

Eveline du Bois-Reymond Marcus

SHELLS and SEA LIFE was formerly known as the OPISTHOBRANCH NEWSLETTER. The magazine is open to articles and notes on any aspect of malacology, fossils or related marine life. Technical articles submitted for publication are subject to editorial board review. Articles should be submitted typed and double-spaced. Authors receive 10 free reprints of their article. Additional reprints are available for purchase provided they are ordered prior to publication. For additional information send for free booklet "Suggestions for Preparing Manuscripts for SHELLS and SEA LIFE." We undertake no responsibility for unsolicited material sent for possible inclusion in the publication. No material submitted will be returned unless accompanied by return postage and packing.

SHELLS and SEA LIFE ISSN 0747-6078 is published monthly for \$24 per year by Steven J. Long & Sally Long, 1701 Hyland, Bayside, CA 95524. Second-Class Postage Paid at Bayside, CA. POSTMASTER: Send address changes to: SHELLS and SEA LIFE, 1701 Hyland, Bayside, CA 95524. Telephone (707) 822-1024. Outside U.S. postal ZIP code areas — \$30 surface or \$40 air mail. Full time students or senior citizens may deduct \$5 from the regular rates with proof of status. Clubs are eligible for special subscription rates — write for details. For multiple year subscriptions, deduct \$5 from the basic rate for the second year and \$10 from the basic rate for the third and additional years. Send change of address 6 weeks in advance. The publisher reserves the right to change subscription rates during the term of a subscription upon 30 days' notice. This notice may be by mail to the subscriber, by notice contained in the publication itself, or otherwise. Subscription rate changes may be implemented by changing duration of the subscription.

Monthly DISPLAY ADVERTISING is \$26 per column inch (2.3" wide), minimum \$33 per column inch (3.2" wide); \$47 per column inch (4.8" wide); \$600 per page, with discounts for larger ads & multiple insertions. Rates & discounts only apply to prepaid advertising. Multiple copies of individual issues — \$8 for 5 copies; \$10 for 10 copies; \$20 for 25 copies; \$35 for 50 copies; \$50 per 100 copies. These special rates are only available to dealers on standing order or to authors for additional reprints. Orders should be placed prior to publication month. Write or call for additional information or rate card.

© Copyright Steve & Sally Long 1985

Notes on recent and fossil Neritidae, 13. Five times *Neritina spinosa*

Henk K. Mienis, Zoological Museum, Mollusc Collection
Hebrew University of Jerusalem, 91904 Jerusalem, Israel

In a report on a collecting trip to the Solomon Islands, Boorman (1979) mentioned and figured a spinous Nerite from a freshwater creek near Munda, New Georgia, as cf. *Neritina spinosa* Lamarck. Although Lamarck has described several Nerites as new to science, none of them were named *Neritina spinosa*.

The name *Neritina spinosa* has been employed, however, five times by other authors as a new (sub)species name. They are enumerated and discussed here in chronological order.

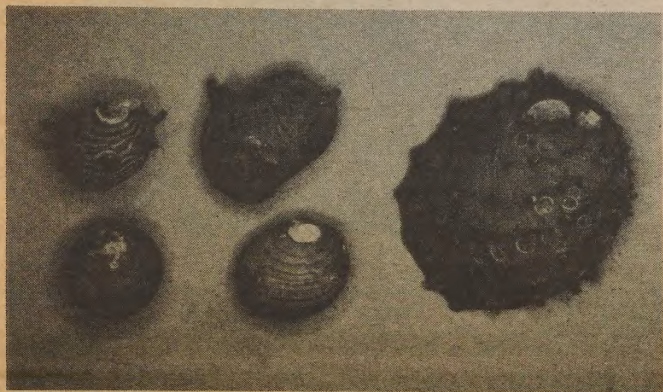


fig. 1 (top left) *Clithon spinosus* (Sowerby, 1825). fig. 2 (top center) *Clithon corona* (Linnaeus, 1758). fig. 3 (bottom left) *Clithon rarispina* (Mousson, 1849). fig. 4 (bottom center) *Clithon wallacei*. fig. 5 (right) *Neritina juttingae* Mienis, 1973.

Neritina spinosa Sowerby, 1825 — fig. 1

This species is well characterized by the presence of dark spiral bands on a greenish to reddish-yellow background and by the well-developed spines on the shoulder of the last whorl (although they may be wanting sometimes). It is a species of the genus *Clithon* s.s. and its correct name reads: *Clithon (Clithon) spinosus* (Sowerby, 1825).

Originally the species was described from Otaheite = Tahiti. According to Starmuehlner (1976) it is confined in its distribution to Tahiti. **Remark:** Budgin is often quoted as the author of this species. However, it was described by Sowerby, who apparently used a manuscript name by Budgin.

Neritina spinosa Wood, 1828 — fig. 2.

This is actually the species figured by Boorman (1979). It is a junior synonym of the rather polymorphic *Clithon (Clithon) coronata* (Linnaeus, 1758).

This species is characterized by having a shell with an inflated last whorl. Its basic color is usually dull yellowish, greenish or sometimes violet, often with darker spiral bands and irregular

Neritina rarispina forma *spinosa* Mousson, 1849 — fig. 3.

Also in this case we are dealing with a *Clithon* species. It is nothing else than a spinous form of *Clithon (Clithon) rarispina* (Mousson, 1849).

The shell is relatively small, smooth and globular. Usually it is grayish olive-green with numerous very small blackish spots. Spines, if present at all, are very short.

Both the nominal species and the spinous form were described from Java, Indonesia. It is, however, also known from New Guinea (Starmuehlner, 1976), while there are specimens of *C. rarispina* from Camoguin and Negros Island, both Philippines in the author's collection.

Neritina aculeata var. *spinosa* Recluz, 1850 — fig. 5.

Recluz based his description on a figure in Sowerby (1849, pl. 110, fig. 34), which shows a spiny form of *Neritina juttingae* Mienis, 1973 (= *Nerita aculeata* Gmelin, 1791 not Mueller, 1774).

The general shape is typical for the genus *Neritina* s.s. and is characterized by a very large last whorl and extremely wide aperture. The form *spinosa* is characterized by the presence of up to 9 spiral rows of blunt spines.

The exact systematic position within the genus *Neritina* is still unclear since the anatomy of the species remains so far unknown. The presence of spines on the shell is, however, unique in the genus *Neritina*.

The type locality of the spinous form was Sumatra. In its general distribution *Neritina juttingae* is confined to Singapore, Borneo, Sumatra and Palau Panaitan (Mienis, 1973).

Neritina wallacei var. *spinosa* Schepman, 1919 — fig. 4.

This is again a *Clithon* species and represents the very rare spiny form of *Clithon (Clithon) wallacei* (Dohrn, 1861), which name was emended more correctly to *wallacei* by von Martens (1879).

It has a relatively small, smooth, high conic shell, showing numerous thin colored bands (often red) on a green, blue or violet background.

The type locality of the spinous form is Aru Islands, Bendjina River. Its general distribution is confined to New Guinea and the off laying islands (van Benthem Jutting, 1963).

The status of the five (sub)species originally described as *Neritina spinosa* can be summarized as follows:

Neritina spinosa Sowerby, 1825 = *Clithon (Clithon) spinosus* (Sowerby, 1825).

Neritina spinosa Wood, 1828 = *Clithon (Clithon) corona* (Linnaeus, 1758).

Neritina rarispina forma *spinosa* Mousson, 1849 = *Clithon (Clithon) rarispina* (Mousson, 1849).

Neritina aculeata var. *spinosa* Recluz, 1850 = *Neritina juttingae* Mienis, 1973.

Neritina wallacei var. *spinosa* Schepman, 1919 = *Clithon (Clithon) wallacei* (Dohrn, 1861).

REFERENCES

- Benthem Jutting, W.S.S. van 1956. Systematic studies on the non-marine mollusca of the Indo-Australian Archipelago. V. Critical revision of the Javanese freshwater gastropods. *Treubia* 23(2):259-477.
- Benthem Jutting, W.S.S. van 1963. Non-marine mollusca of West New Guinea. Part 1. Mollusca from fresh and brackish waters. *Nova Guinea, Zool.*, 20:409-521, pls. 24-25.
- Boorman, B. 1979. Solomons sojourn. *Keppel Bay Tidings*, 17(6):1, 3.
- Martens, E. von 1879. Die Gattung *Neritina*. *Mart.-Chemn. N. syst. Conch. Cab.*, 2(10):1-303, pls. A, 1-23.
- Mienis, H.K. 1973. Notes on recent and fossil Neritidae, 3. *Neritina juttingae*, new name for *Nerita aculeata* Gmelin, 1791, non Mueller, 1774 (Mollusca, Gastropoda). *Basteria* 37:39-40, 93.
- Mousson, A. 1849. Die Land- und Suesswasser-Mollusken von Java. *Zurich*, 126p., 22 pls.
- Recluz, C.A. 1850. Notice sur le genre *Nerita* et sur le s.-g. *Neritina*, avec le catalogue synonymique des Neritines. *J. de Conchyl.*, 1:131-164.
- Schepman, M.M. 1919. On a collection of land and freshwater and a few marine mollusca. *Nova Guinea, Zool.*, 13:155-196, pls. 4-8.
- Sowerby, G.B. 1825. A catalogue of the shells contained in the collection of the late Earl of Tankerville, arranged according to the Lamarckian conchological system; together with an appendix containing descriptions of many new species. *London*, I-VIII, 1-92, I-XXXIVp., 8 pls.
- Sowerby, G.B. 1849. Monograph of the genus *Neritina*. *Thes. Conch.*, *London*, 10:507-546, pls. 109-116.
- Starmuehlner, F. 1976. Beitrage zur Kenntnis der Suesswasser-Gastropoden pazifischer Inseln. *Ann. Naturhist. Mus. Wien*, 80:473-656, pls. 1-21.



BULLETIN DE L'ASSOCIATION CONCHYLIOLOGIQUE
DE NOUVELLE-CALÉDONIE

ROSSINIANA

A quarterly publication on shells
in French and English.

B.P. 146

18. rue Henrie-Bonneaud
Noumea, New Caledonia
Overseas Airmail

Subscription Price \$20.00

Now available from Shells and Sea Life

FREE CLASSIFIED AD!

Four line classified ad free with your subscription or renewal to *Shells and Sea Life*. Ad copy must accompany subscription payment. Sell or trade those extra shells! Place a WANTED ad for that shell you have been looking for! Wish your wife "Happy Birthday." Offer expires March 1, 1986.

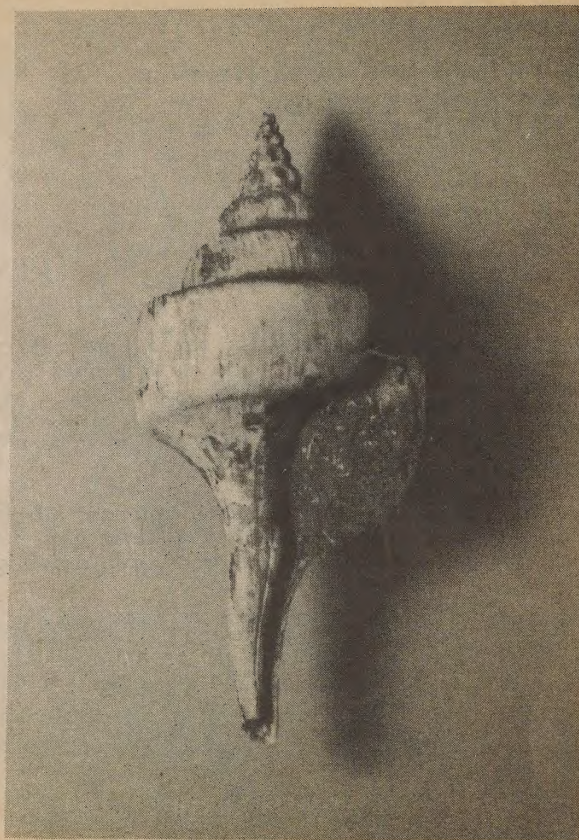
***Clavilithes penrosei* (Heilprin) from the middle Eocene of Texas**

Christopher Garvie, 66 Higate West Hill, London N6 6BU England

While collecting recently in the middle Eocene (48 million year old) deposits of Texas, an almost complete adult specimen of *Clavilithes penrosei* (Heilprin, 1891) was found, lacking only the protoconch. I believe this to be the first complete specimen of this species from the area. Apart from the Reklaw formation, where *Clavilithes* is one of the more common large fossils, this species is rarely found complete in the Clairbornian. Just how rare this find is, may be judged from the fact that this is the first large specimen found in over 400 collecting trips and over a period of 15 years! Most collections though, do possess the large columellas and fragments of the body whorl. This specimen came from the top of the Viesca member, (Bureau of Economic Geology (Texas) No. 145-T-34) described as: "Navosota River, upper edge of clearing occupied by narrow clearing on valley slope east of river, about one half mile south of abandoned iron bridge, airline distance. J.A. Donahue 160 acre tract, middle of Jose Maria Viesca Survey." The sediment there consists of a soft yellow marl, beneath an indurated ledge, containing many rolled and worn molluscs: the Weches in east-central Texas has been regarded as a shallow-water near-shore deposit by Stenzel, 1938.

Redescription: Whorls: 7-1/4, length 165mm, maximum diameter 76mm. First whorl with 9 prominent costae, the next three with 6-7 costae. Spire whorls with 9 revolving lines, two subsutural ones close together and forming a weak subsutural collar, the rest wider and equally spaced. Suture deeply impressed, shoulder prominent and in later whorls concave. Body whorl with an almost rectangular cross-section. Heilprin, 1891, surmised, from comparison with most other *Clavilithes* species, that a posterior canal was present: this specimen shows little or no trace of such a feature. Outer lip thin, meeting the previous whorl at right angles. Beak long and slightly twisted, labral callus deposit thin.

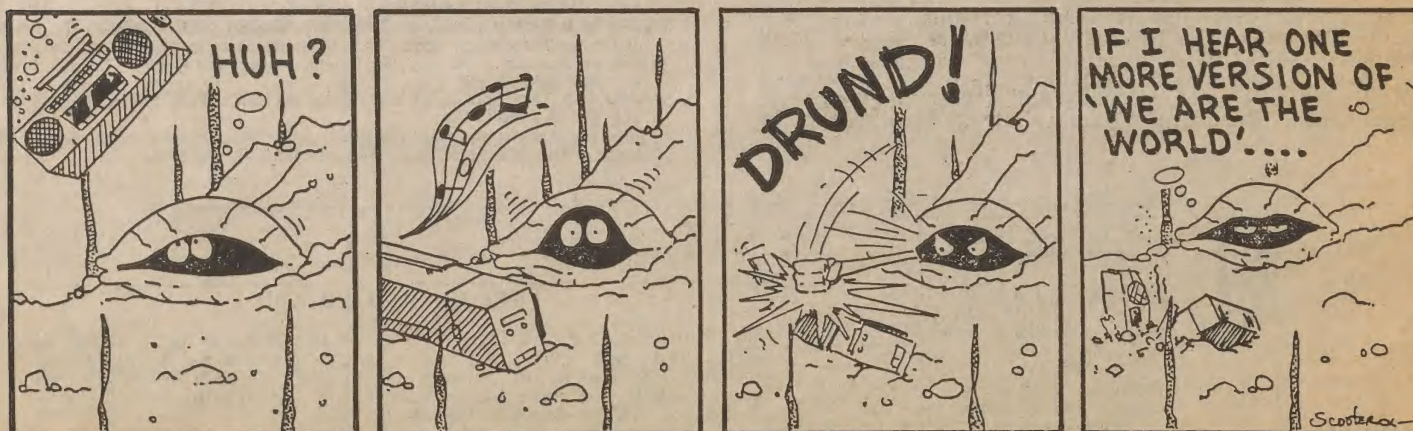
Remarks: The thin outer lip of this specimen is not typical of *Clavilithes* s.s. According to Palmer, 1937, pl. 55, fig. 1, *penrosei* has a thickened outer lip at least posteriorly. Typical *Clavilithes* has usually a thick outer lip, which in the adult is often varix like. Perhaps the present species should be separated subgenerically but on a single specimen that is open to question. This adult is a smaller one, as columellas have been found indicating a maximum size perhaps twice the present 165mm.



Clavilithes, a typically Eocene genus, is known from the Cuisian (Paleocene) of the Paris Basin, and is represented there by *C. costarius* (Deshayes) and *C. parisiensis subscalaris* Grabau; the genus is very common in the Lutetian and Bartonian of England and France. In fact a day's collecting from the type Bartonian on the South Coast of England will almost certainly produce two or three 165-210mm specimens of *C. longchaevus* Solander. According to Wenz, 1944, the genus does range to the recent, being represented in the South Pacific by *C. (Cyrtulus) serotinus* Hinds.

REFERENCES

- Heilprin, A. 1891. The Eocene Mollusca of the State of Texas. Proc. Acad. Nat. Sci. Philadelphia 42:393-406.
 Palmer, K.V.A. 1937. The Claibornian Scaphopoda, Gastropoda, and Dibranchiate Cephalopoda of the Southern United States. Bull. Amer. Paleontol. 7(32):548p., 90 pls.
 Stenzel, H.B. 1938. The Geology of Leon County, Texas. Univ. Texas Bull. 3818, 293p., 61 figs., maps.
 Wenz, W. 1938-1944. Handbuch der Paleozoologie. Bd. 6: Gastropoda. 7 Teile. 1639p., 4211 figs.



PERSONAL NOTES

From Ellen J. Moore: It is my sad duty to inform you that our friend and colleague Myra Keen passed away at the age of 80 on January 4th. We all have our special memories of Myra and know that she left a legacy behind her of books, former students, colleagues, amateurs and dear friends. I would like to share with you some quotations of hers from interviews, tapes, and letters. May Myra's own words soften the news of her death and bring back to you pleasant memories of your own.

"My Mother used to think that February was the gloomy month, and that if she got through that she could look forward to the rest of the year, but I think of February as the month when the early spring flowers start to bud and bloom."

"I was not the warrior type of woman. It is the quiet going ahead and doing it, proving you can do it, so that after awhile (it takes a long time) but after awhile, it reaps its own reward. And I think it's a more solid reward than it is to get out with a hatchet and start battering down the door."

"I felt that war is no solution for any problem or conflict of any kind, but I'm not a peace activist. I don't get out and parade and march as some others do."

"I never let myself get angry. I'd rather be a martyr to unfairness than be looked at askance as a scrapper."

"I was never particularly adverse to the idea of marriage. I expected to marry some day if the right person came along, but I was never out searching. I was too interested in what I was doing."

"We had been brought up to be ladylike and proper, to do what was socially acceptable, and not to infringe on the rights of others. One should not have an appetite one cannot control which is likely to lead to excesses. One should avoid excesses of any kind. I avoided buying soda-pop and candy or frivolous luxuries."

"Live theater is artificial. It's holding a mirror to life, and I'd rather look at life. But music is something different: it feeds the spirit. Music continues to be one of the joys of my life."

"I was teaching an advanced paleontology course in which I demonstrated to students the proper way of wrapping shells for shipping. I'd pass out assorted shells to the students for them to wrap. Then I would climb up on a chair and tell them the story of the station agent who was asked by a young man if his trunk would survive the trip to London. The agent threw it off the platform and said, 'That's what it'll get in Edinburgh,' threw it down a second time and said, 'That's what it'll get in Glasgow,' and then dropped it a third time on behalf of London. The trunk fell apart and the agent said to the young man, 'I don't think it'll make it'. Then I'd start throwing packages of the students. The look on their faces would send me off into spasms. That was one course they remembered."

And we will remember Myra, the dedicated scientist and great lady who will continue to inspire us. Best wishes, Ellen J. Moore — U.S. Geological Survey, Branch of Paleontology and Stratigraphy - M/S 915, 345 Middlefield Road, Menlo Park, CA 94025

Frederick Raymond "Ray" Upton, 56, died at home on Christmas Day. Ray spent 37 years in and around the military, almost all of that time as a civil service employee at Fort Huachuca, Arizona. He is survived by his wife Virginia (Ginny), who writes: "I have every intention of continuing with my collecting, but it may involve less dredging and my signing up for tours. Already, I have catalogued more than 18,000 shells just from the Panamic region, with 12 shoeboxes still to be added. My master inventory is listed according to shell in numerical order and location in geographical order. I also have compiled books of locality data, mine as well as that of other shellers. We were ready to seriously pursue this upon our retirement." "I may either consider teaching longer or retiring as planned in 1989. Not sure yet!"

From Gene Everson: In the November issue there was a request in the Reader Forum for information about the "China clam." In case the other collectors are interested in this species, I am sending a copy of my reply.

Dear Karen,

There is a very good reason why you cannot find the scientific name of the china clam in your shell books. It is not there. The name is *Hippopus porcellanus* Rosewater, 1982. Since this species is so recently named, and since popular shell books take years to procrastinate, write & publish, the China clam is not easy for an amateur collector to find. However, it was through the efforts of an amateur that this common shell was named at all.

John Root is a shell processor in West Palm Beach, Florida. He gets large quantities of uncleaned shells and bleaches, acids, polishes, slices, buffs and packages the results for gift shops. For years he contended that the "China clam" was different than the "Bear Paw," *Hippopus hippopus* (Linnaeus, 1758). Although the Bear Paw in gem condition has strong flutes, red blotches and is heavy, and the China clam is rather smooth sculptured, grayish white lacking most of the characteristic strawberry color and is much lighter in weight, these two species were considered by professionals since the days of Linnaeus to integrate completely and were all called *H. hippopus*.

The description and the picture that you seek can be found in *The Nautilus* Vol. 96(1) January 25, 1982, pages 3-6. "A New Species of *Hippopus* (Bivalvia: Tridachnidae). Also, I just noticed that Abbott & Dance's *Compendium of Seashells* illustrates both *H. hippopus* & *H. porcellanus*. I believe that it was primarily through the efforts of John Root that Joe Rosewater reviewed the classification of this group, and the China clam, *Hippopus porcellanus* Rosewater, 1982, was belatedly named. — Gene Everson, 5703 Court View Drive, Charlotte, NC 28226

From Rachel Imlah After October 1, my new address is 178 Summit St., New Haven, CT 06513.

From Pam Scott: I want you to know how much I enjoy *Shells and Sea Life* in its new format — such a variety of information, both for the professional and the amateur. You're covering all bases and that's something that's been needed for a good long time. Hooray for you!



Now, I would like to identify "What Is It? #17." The photograph of the exceptionally attractive and colorful crab is *Hepatus ephelithicus* (Linnaeus); however, it is commonly called the Calico crab or, according to Voss' *Seashore Life of Florida and the Caribbean*, the Dolly Varden crab. I find sheds and dead crabs frequently along the shoreline of the bay waters of Sanibel and Captiva Islands here in Florida. The Audubon Society Field Guide to North American Seashore Creatures shows its range from Chesapeake Bay to Florida and Texas and the West Indies to Campeche. The Stone Crab *Menippe mercenaria* (Say) is a dark brownish red creature mottled with grey spots; its pincer fingers are black. They are most often found down here on dinner plates — the meat of their claws is absolutely delicious.

Keep up the good work! — Pam Scott, 16861 Davis Road SW #824, Ft. Myers, FL 33908.

From Ralph E. Ferguson: "What is it #17" We have called them "Queen Crabs" for years in this business. — Ralph E. Ferguson, Ferguson's Marine Specialties, 617 N. Fries Ave., Wilmington, CA 90744

Notes from Hans Bertsch — Helping Science: The Thrill of Discovery: Southern California is crowded. It is filled with roads, houses, stores, and bodies on the beach. But then, I'm spoiled, because I spent six weeks in Baja California Sur. Using 2 weeks to drive down and up the peninsula, I spent most of the summer on a very private beach which overlooks white sands, fossil shell reefs, Isla Cerralvo, and the incredible blue of the Gulf of California. I stayed at Hotel Las Arenas, 30 miles east of La Paz, on a rocky promontory between Punta Arenas lighthouse and Punta Perico. It is a locale for lovers and dreamers, for quiet moments, and for time leisurely spent dallying under the full moon. But I was there to work. Really!

I was leading marine research expeditions under the sponsorship of Have Mule Will Travel. This is a non-profit educational corporation that advertises scientific research projects (such as my continuing investigations into the zoogeography, taxonomy, and evolutionary ecology of nudibranch mollusks). Interested individuals (such as yourself) join a research team and spend a week or more helping a scientist conduct his or her investigations. Their fees cover their own expenses plus a share of the expedition costs (including those of the scientist-leader); their fee is tax-deductible. And it can be a great vacation. Have Mule (787 South Grade Road, Alpine, CA 92001) offers a variety of scientific trips, including archaeological, biological, and paleontological. Destination sites include Nuku Hiva in the Marquesas, Haiti, Antigua, Israel, and Paraguay — on land, on the sea, or underwater.

I had already led an expedition to the Punta Arenas region in April. I have spent 3 summers 20 miles up the coast at Las Cruces, and have visited other nearby collecting localities (some on California Academy of Sciences expeditions). So I knew the area, where the mollusk fauna might be the richest, and what animals I could expect to find. As a scientist I also knew to expect the unexpected: A manta ray swimming alongside the boat. Underwater lava cliffs covered with color. A giant purple sea star with orange tube feet. Stinging Portuguese man-of-war. The first record of a species of *Favorinus*, a white eolid nudibranch with rose-pink cerata that eats the eggs of other nudibranchs. The dorid nudibranchs *Chromodoris baumanni* Bertsch, 1970, with its ruffly egg mass and 5 *Chromodoris norrisi* Farmer, 1963, all under one rock. Thousands of Cortez garden eels; they live in vertical sand burrows extending their heads and bodies two feet (until approached). Submerged basalt ridges totally hidden under a dense current-swayed covering of purple-stalked gorgonians with crystal white polyps.

During this expedition I was especially interested in documenting biological activities — egg-laying behavior and predator-prey relationships. I found the black sponge that *Chromodoris norrisi* eats; dozens of egg-laying *Epitonium billeanum* (DuShane & Bratcher, 1965) on their solitary coral prey *Tubastrea*; seasonal differences in the reproductive activity of various gastropods; and the nests of the frilly swimming clam *Lima hemphilli* Hertlein & Strong, 1946.

I was underwater almost daily during the summer expedition, and filling tanks with a portable compressor almost nightly. Then there were data to transcribe into my log books and discussions with my research team members. Still there was time for non-biological events. I judged a local beauty contest (helping to choose *Senorita Los Planes*) and was interviewed on the evening news program of the La Paz television station. The interview was conducted by the host of *El Pulso del Mundo*, *Senor King*; it was live and in Spanish. My good friend Agustino (one of the waiters at Hotel Las Arenas) accompanied me — and it was certainly reassuring when the TV cameras focused on me to know that a friend who did not know English was nearby....

As I write these lines, I am preparing for another Have Mule Will Travel research expedition. If any of you like to collect your own shells, these programs may be ideal. The team leaders usually encourage initiative by the participants — so you would certainly be able to find some exotic specimens. Moreover, you could also write it off for tax purposes. But best of all, you would be sharing first hand in the thrill of scientific discovery and helping scientists in their quest for the unknown. — Hans Bertsch, 6056 Beeman, No. Hollywood, CA 91606

From Kirstie Kaiser: The Red Sea - '85 Expedition will be leaving Los Angeles International Airport on October 24 [1985]. This dive trip and journey into the ancient past is being hosted by Twila Bratcher who is orchestrating the trip for 12 members.

Our plans are to fly to Cairo, Egypt where we will go to Sharm el-Sheikh located at the tip of the Sinai Peninsula. There we will board the dive boat "Lady Jennie V" for a week of diving, studying and photographing the molluscan fauna of the Red Sea from Ras Muhammed to the isles of the Straits of Tiran.

Because the Red Sea Borders the extreme end of the vast Indo-Pacific province, there are a number of endemic species but the majority of species are closely related to the molluscan

inhabitants of nearby waters, mainly those of Indo-Pacific faunal affinity.

We look forward to returning with greater knowledge of the land, the people, and the wide variety of molluscan life! — Kirstie Kaiser, 786 Starlight Heights Drive, La Canada, CA 91011 [ed. — our apologies for not getting this note in sooner. We hope to get a report on what happened on the trip and some photos of the resulting collections]

***Prostheceraeus bellostriatus*: A Flatworm that's hard to forget**

Jim Gatewood, 7584 Amethyst St., Rancho Cucamonga, CA 91730



Every once in a while a part-time diver like myself gets a chance to see something that really makes a dive one to remember. In October of last year [1984], I had just such a dive at San Nicholas Island. I was diving off the west end of the island in about 30 feet of water searching for nudibranchs, when out of the corner of my eye I spotted something weaving its way in and out of a kelp holdfast. I swam over, with my camera at ready, to get a closer look. The object that had caught my attention turned out to be the flatworm, *Prostheceraeus bellostriatus*.

This beautiful flatworm is described as being up to 35mm long and 25mm wide. It can easily be identified in the field by its unique color pattern of alternating black and white longitudinal stripes across the dorsum with an orange mid-dorsal and border stripe. The range of *Prostheceraeus bellostriatus* is from Monterey Bay to Southern California as listed by Morris, Abbott and Haderlie (1980).

Photographing a flatworm can be a real chore. You see, these little guys don't just sit there like a clam; they can move surprisingly fast. Anyhow, after snapping off a half dozen photographs I looked up to see where my buddy was, thinking that maybe he'd like to see this flatworm. Now remember, I only looked away for a few seconds, and you guessed it, old *Prostheceraeus bellostriatus* was gone. When I tried to tell the other divers on the boat about the beautiful flatworm I'd seen, they all looked at me like I was telling a fish story. Well, lucky for me at least one of my photographs turned out to substantiate my story.

REFERENCE

Morris, R.H., D.P. Abbott & E.C. Haderlie [Eds.] 1980. Intertidal Invertebrates of California. Stanford Univ. Press, Stanford, Calif., p.81.

St. Petersburg Shell Club, Inc.

We would like to let your readers know that on February 14-15-16, 1986, the St. Petersburg Shell Club will present its 39th Annual Shell Show. It will be held at the Community Center, 1 Park Place at 106th Ave. Treasure Island, Florida.

This show is put on by collectors who prepare museum quality exhibits from their private collections to show to the public. These exhibits are entered in categories and are judged for quality and correctness of presentation.

While the exhibits are judged by noted shell experts, the exhibitors prepare their exhibits with the public in mind. Ribbons and the enjoyment of the public are the only rewards the club members receive.

We are proud to be the only shell club in the continental United States that is able to present an award from the Smithsonian Institute. This award goes to the outstanding educational exhibit presented by an amateur. This is a very coveted award and collectors from all over the country come here to try for it.

Membership in the St. Petersburg Shell Club is open to anyone interested in shells and related subjects. This year marks the 50th Anniversary of the Shell Club's founding.

A moderate donation of \$1.50 for adults will be taken at the door to help the club defray the cost of putting on the show. Children under 15 are admitted free with an adult. There will also be shells and related items for sale during the show.

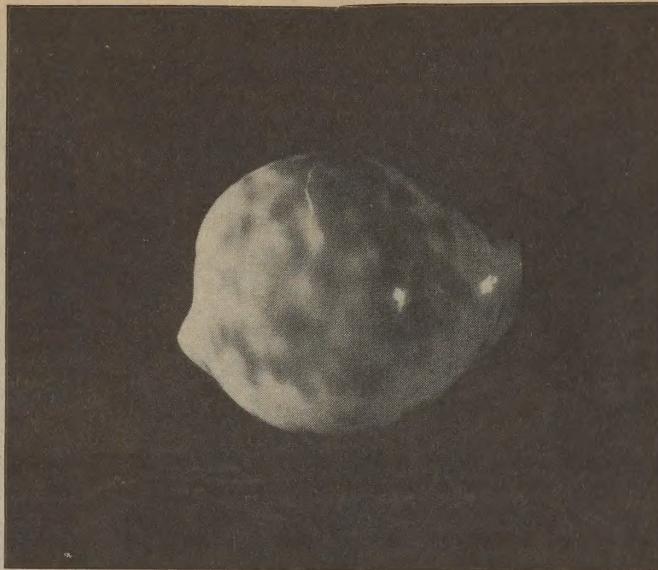
Illustration:



biological, scientific,
ad and logo design

SCOOTER BEERS
15 W Hawthorne
Eureka, CA 95501

originals on request, color or pen



Cypraea iu-tsui Shikama, 1974. Photos by Marty Gill, Shamaron Shells, 1306 East Forth-Eighth St., Brooklyn, NY 11234.



TELL ADVERTISERS YOU SAW THEM IN S&SL



The Abbey
Specimen Shells

P.O. Box 3010
Santa Barbara, CA 93130
(805) 963-3228

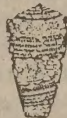
Over 3,000 species regularly in stock!
We will select your shells as if they were for our own collection... and we're very, very picky!

Bob Foster & Charles Glass

SHELLS and CORALS



77 UNION STREET
NEWTON CENTRE MASSACHUSETTS 02159
617 244-7018



Tom Shepherd
Specimen Sea Shells
2222 Beech Street
Virginia Beach, VA 23451
Free Price List Upon Request



When in Los Angeles Visit
The Sea
305 North Harbor Blvd.
San Pedro, Calif. 90731
(213) 831-1694
World-wide importer
Exciting museum-like shop with everything for sale.
No lists. No mail order.

Advertiser!

This space is reserved for
YOU

For details write:
SHELLS and SEA LIFE



FOR BEAUTIFUL DISPLAY
USE ACRYLIC STANDS BY VENUS
Pleasing Customers Since 1973
WHOLESALE ONLY — WHITE

VENUS DISPLAYS

Box P, 10713 Ashby Ave., Los Angeles, Calif. 90064
Special stands for shells. Tel.: (213) 836-3177

Shells • Coral • Jewelry • Gifts



CONUS spurius atlanticus

THE SHELL STORE
440 - 75th Avenue
St. Petersburg Beach, FL 33706
Between Blind Pass Road
and Gulf Boulevard
Phone 360-0586

WRITE FOR FREE PRICE LIST

ROBERT LIPE
BETTY LIPE



Phone (213) 456-2551
22762 Pacific Coast Hwy.
Malibu, California 90265

RARE SHELLS OUR SPECIALTY

Largest stock of worldwide specimens on the West Coast. Plus unique and beautiful fine art, carvings, handcrafted jewelry. Weavings — All related to the Sea.

RETAIL ONLY — No Lists of Catalogues

We do our best to answer specific requests sent by mail.

Ask any collector!
Specimen shells graded by the HMS-ISGS

PHILLIP W. CLOVER



COLLECTOR & DEALER IN WORLDWIDE
SPECIMEN SEA SHELLS
CURRENT AND OUT OF PRINT SHELL BOOKS
FREE PRICE LISTS UPON REQUEST
P.O. Box 83, Glen Ellen, CA 95442

Preserve your Periostracum or — Save your Skin!

Roland Anderson, The Seattle Aquarium, Pier 59, Seattle, WA 98101
Photos by Lelani Wilson of The Seattle Aquarium



Preserved and unpreserved shells of the northwest ugly clam, *Entodesma saxicola*.

Shells with tight-fitting periostracums will frequently break when dried, destroying what otherwise might be an interesting or valuable shell. Collectors have overcome this tendency to break by either removing the periostracum or coating it with glycerin (expensive) or mineral oil (messy). Both coatings work adequately but shells prone to such breaking need periodic re-coatings. Removing the periostracum might improve the beauty of the shell, but keeping the periostracum intact is necessary for accurate identification of the shell and makes it more interesting to my mind.



After seeing a television commercial showing the beneficial effects of a moisturizing skin lotion on a dried leaf I tried several of these lotions on shells that are very prone to breaking in hopes of finding a more convenient, inexpensive coating. However, after three weeks all coated shells had dried and cracked.

A somewhat more successful treatment I have used is to soak the shells in a solution of buffered formalin, glycerin, and household sugar, a solution used to preserve the color in dried starfish (Furlong & Pill, 1972, *Starfish — Guides to Identification and Methods of Preserving*). After soaking for a month the shells can then be dried without fear of breaking. This solution is also expensive; we have still not come up with the ideal method for saving our periostracums.



Mayon Volcano when it erupted 23 September, 1984, Legazpi City, Philippines. Bue Antipora in foreground. Bevan Supplies, 1344-A Angono St., Makati, Metro Manila, Philippines.

NEW EDITIONS AVAILABLE

A SHELLER'S DIRECTORY OF CLUBS, BOOKS,

PERIODICALS AND DEALERS — 1985, 9th Edition

106 pages, 5½ x 8½", worldwide information on the clubs, dealers and books which will help you with your hobby. An annual publication. \$3.00

A CATALOG OF DEALERS' PRICES FOR MARINE

SHELLS — 1985-86, 8th Edition.

87 pages, 8½ x 11", retail values on nearly ten thousand species of marine, plus thousands of freshwater and terrestrial shells. Authors and dates included. Great to use as a checklist for your collection, as well as to determine value for insurance purposes. Published in odd numbered years. \$9.50

POSTAGE — extra on all orders. Single copy add \$0.75 for surface — \$1.00 for two copies. First Class Mail add \$1.50 per copy. Air Mail Overseas add for one Directory \$2.00 to Europe & South America, \$3.00 elsewhere; for Catalog add \$3.50 to Europe & South America and \$5.00 elsewhere.

PAYMENT — Check (U.S. Funds only), money-order or cash (registered mail please). Or we can supply a pro-forma invoice.

Of Sea and Shore

P.O. BOX 219

Port Gamble, Washington 98364

WORLDWIDE SPECIMEN SHELLS

Your ONE STOP Marine & Land Shell Connection

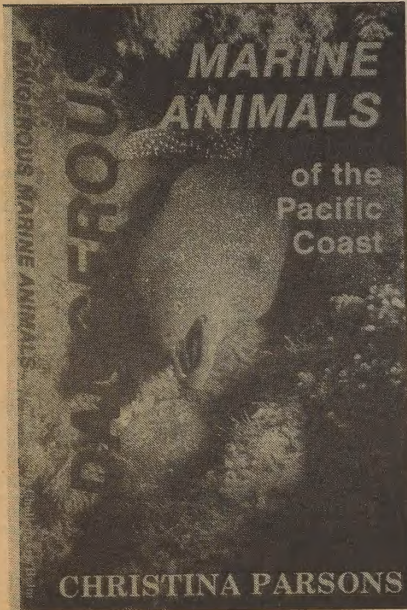
Wide Variety of Select Quality Specimens —
"Knowledgeable & Courteous Service"

Write for Free Illustrated List

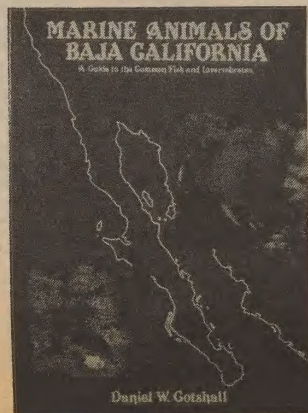
Richard Goldberg / Worldwide Specimen Shells
P.O. Box 137, Fresh Meadows, N.Y., 11365, U.S.A.



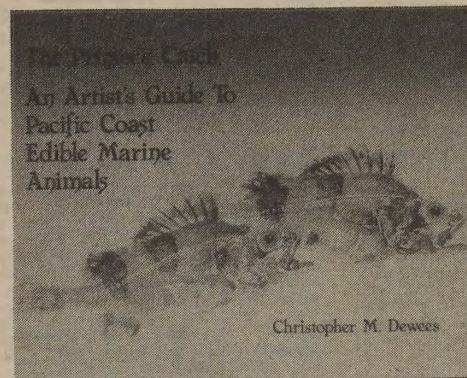
SEASHELL TREASURES BOOKS



Parsons, C. 1985. **Dangerous Marine Animals of the Pacific Coast.** Sea Challengers, Monterey, California, 96p., ill., col. cover. SB. A guide to fishes and invertebrates that bite, sting, spine, shock, cut or are poisonous to eat. Includes hazards to avoid, first aid instructions, and where to get medical attention. ISBN 0-936940-03-4 Order No. 185 - \$5



Gotshall, D. **Marine Animals of Baja California.** Sea Challengers, 213 pages with color photos throughout. Field guide to the nearshore marine fishes and invertebrates that occur from Cedros Island, Baja California to Cabo San Lucas and up into the Sea of Cortez to Bahia de Los Angeles. Size, habitat and range. Softbound Order No. 182 - \$18



Dewees, C.M. 1984. **The Printer's Catch: An Artist's Guide to Pacific Coast Edible Marine Life.** 128 pages, 43 color plates and 22 black & white plates. This is the first book to present the work of an American Gyotaku (i.e., Japanese fish printing) artist. Includes fish and shellfish. Narrative covers life history, consumer information and a description of fisheries. Instructions for making your own fish prints. Hardbound Order No. 373 - \$27

Stix, H. & M. Stix, **The Shell: Gift from the sea.** One of the most beautiful and revealing presentation of sea shells ever published, with dramatic layout and design, breathtaking color plates and stunning black and white photographs. Covers the shell in history, shell lore from many cultures, and the romance of collecting and the influence of shell forms on art. 203 illustrations, including 82 plates in full color. 188 pages, hardbound library binding with dust cover. **EXQUISITE BOOK!** Hardbound Edition 695H - \$55; Smaller hardbound edition 695D - \$13

THE SHELL:
Gift of the Sea

By Hugh and Marguerite Stix
and R. Tucker Abbott

Photographs by H. Landshoff

THIS BOOK IS ONE OF THE MOST BEAUTIFUL PRESENTATIONS of sea shells ever published. Its breathtaking colorplates and stunning black-and-white photographs reveal each shell to be an inspired and unique work of nature's art. The introduction deals with the shell in history, shell lore, the romance of collecting, and the influence of shell forms on art.

Bibliography, index. 100 illustrations, including 65 in full color, 164 pages, 9 1/4" x 9 1/4", full cloth binding, shrinkwrapped 8058-4

New Trade Books

Most of these books are published in the U.S. and available in quantity from our stock for either wholesale or retail sales. Foreign titles are listed with our Antiquarian Books. Prices do not include postage or insurance. Please include your telephone number and best time to contact you with all correspondence.

Abbott, R.T. & S.P. Dance **Compendium of Seashells**. 2nd Printing (rev.). E.P. Dutton, New York, p. 1-410, ca. 4000 color illust. These 2 experts have worked together to produce the largest and most complete, all color, general identification shell book of this century. Each species is illustrated with its own color photo, scientific and common name, and occurrence data. Hardbound Order No. 460 - \$50

Abbott, R.T. **Collectible Shells of the Southeastern US and the Caribbean**. American Malacologists, 68 pages, color illustrated throughout. Hundreds of species illustrated in this handy reference. An excellent field reference. Softcover. "Wet" edition has waterproof pages 0816W - \$8.95; Dry edition 0816D - \$5

Abbott, R.T. **Sea Shells of North America**. 33-1/3 RPM Record. This record and the associated book should take most of the fear out of scientific names for shell collectors. Every shell club library should have one to check out to each of the newcomers and help them get started. A quality recording of all 1200 generic & specific names in the same sequence as used in "Seashells of North America." Names listed on record jacket so that you can follow while you learn the correct pronunciations. 33-1/3 RPM Record Order No. 281 - \$15

Abbott, R.T. **Sea Shells of North America**. A guide to field identification. Full coverage of North American Shells with hundreds of color illus. One of the best field guides. Always a best seller. Softbound Order No. 688 - \$8

Abbott, R.T. **Seashells of the World**. Golden Nature Guide. We have sold more of these over many years than any other book. The inexpensive price & excellent quality with 100's of color illustrations of worldwide shells make it an excellent identification book for all. Softbound Order No. 288 - \$3

American Malacological Union. **How to Study and Collect Shells**. 4th Ed. Detailed, complete instructions on all phases of shell collecting. Information on clubs, other publications and more. 107 pages. Highly recommended for beginners. Softbound Order No. 0205 - \$3

Andrews, J. **Texas Shells. A Field Guide**. Covers mollusk collecting from the shallow marine waters of the Texas coast. Includes a few from the deeper waters of the Gulf of Mexico. Provides details about each specimen and the phylum Mollusca as a whole with much information regarding the history and physical makeup on the Texas coast. Indicates shelling areas. Also preparation of the animals for food. 156 pages, color cover, many line drawings and halftone illustrations. Softbound Order No. 394 - \$10

Arnold, A.F. **Sea Beach at Ebb Tide**. Complete coverage of life

forms found between the tidal marks, in particular those of the lower tidal area. Full coverage of seaweeds and algae. More than 600 illustrations including line drawings and halftones, 490 pages. A very complete and highly recommended field book. Softbound Order No. 272 - \$8

Barr, L. & N. Barr, **Under Alaskan Seas**. The Shallow Water Marine Invertebrates. Alaska Northwest Publishing Co., 208 pages, 241 color photos. Includes description, maximum size and geographic range for 241 species of Alaskan invertebrates. Softcover Order No. 111 - \$15

Bavendam, F. **Beneath Cold Waters**. The Marine Life of New England. Down East Books, 127 pages, 145 color plates. Guide to the subtidal marine life of the Gulf of Maine. Includes common invertebrates and fish most likely to be observed by divers. Softcover Order No. 129 - \$16

Bergeron, E. **How to Clean Seashells**. Color cover, 32 pages, 5.5" x 8.5" format. Best available information. Soft cover Order No. 199 - \$3

Berrill N. **1001 Questions about the Seashore**. Answers in complete detail many questions about the plants, animals and seashore. An excellent value. Well arranged with excellent illustrations. 305 pages. Softbound Order No. 351 - \$6

Bertsch, H. & S. Johnson, **Hawaiian Nudibranchs**. 112 pages with 134 full color pictures. Softcover Order No. 0412 - \$9

Bouchet, P. **Seashells of Western Europe and the English Channel**. This is the English translation of "Coquillages des Cotes Atlantique". A small hardbound book illustrated in excellent color. Full descriptions of all species covered. Hardcover Order No. 291 - \$7

Braun, E. & V. Brown **Exploring Pacific Coast Tidepools**. Full coverage of tidepool animals, seaweeds, shells and other invertebrates that inhabit tidepools on the Pacific coast. Illustrated in Color. Softcover Order No. 159S - \$5, Hardcover Order No. 159H - \$11

Brost F.B. & R.D. Coale **A Guide Shell Collecting in the Kwajalein Atoll**. 157 pages. Descriptions and black and white figures of over 200 shells from the Kwajalein area. Useful for other Pacific areas. Softcover Order No. 406 - \$15

Brusca, G.J. & R.C. Brusca **A Naturalist's Seashore Guide**. Mad River Press, 205 pages, illustrations & keys. Intertidal plants and animals of Northern California region. Softcover Order No. 177 - \$10

Brusca, R.C. **Common Intertidal Invertebrates of the Gulf of California**. 2nd Edition, Univ. Arizona Press, 513 pages, 14 pages of color photos, many black & white photos and drawings. Softbound Order No. 135 - \$27

Burgess, W.E. **Corals, descriptions of the characteristics of corals of many varieties**. Color, black and white photos and line drawings. Identification and habitat data. 96 pages, 64 color photos. Hardcover Order No. 408 - \$5

Campbell, A.C. **The Seashore and Shallow Seas of Britain and Europe**. Descriptions of the form, habitat and distribution of many of the more common marine species. The text and detailed color plates aid in identification of most of the common seashore life. The excellent illustrations and text make this a valuable and attractive guide. Softcover Order No. 411 - \$12

Case, G.R. **A Pictorial Guide to Fossils**. Van Nostrand Reinhold Co., 514 pages, over 1300 photos

and drawings. Hardcover Order No. 110 - \$32

Cassanova, R. & R.P. Ratkevich **Illustrated Guide to Fossil Collecting**. An in depth guide to fossil collecting for the amateur. 240 pages, many halftones. Softbound Order No. 207 - \$8

Clover, P. **Latiaxis Catalog & illustrated check list of Corallophilidae family**. Black and white copies of most Latiaxis species. With several undescribed species. A great help to Latiaxis lovers. 38 pages, 310 text-figs. Softcover Order No. 475 - \$10

Colin, P.I. **Caribbean Reef Invertebrates & Plants, A field guide to the invertebrates and plants occurring on the coral reefs of the Caribbean, the Bahamas and Florida**. 512 pages, illustrated in full color. Hardbound Order No. 843 - \$30

Coulombe, D.A. **The Seaside Naturalist**. Phalarope Books, 246 pages, illustrations. Emphasis on Atlantic coastal shallow water life forms. Softbound Order No. 165 - \$14

Crowder, W. **Seashore Life Between the Tides**. 461 pages, illustrated. A guide for the seashore life of the lower Atlantic Coast of the U.S. and the offshore waters. Fully illustrated with drawings and halftones. Very complete & well-organized. Plasticized cover Order No. 293 - \$8

D'Attilio, A. **Seashore Life Coloring Book**. 46 pages. 150 forms of marine life included in a most delightful coloring book that will acquaint you with the colorful plants and animals from the coral reefs and tidepools while you have fun coloring anemones, jellyfish, corals, barnacles, shells and sea stars. All drawing reproduced in color on the covers as a guide to help your coloring. Common & scientific names of all creatures are given. Softcover Order No. 294 - \$3

Dahlem, T. **How to smoke seafood, Florida cracker style**. Smoking of all seafoods is easy with this booklet. Covers fish, scallops, oysters, shrimp and clams. Includes plans to build your own smoker. Softbound Order No. - \$3

Dance, S.P. **Collectors Encyclopedia of Shells**. This extremely popular book has excellent color photos of over 1500 species with complete data. Scientific & common names. Arranged according to new classification system. Best quality throughout. Hardcover Order No. 137 - \$25

DeLeiris, L. **Shell Coloring Book**. Excellent figures of shells with color illustrations of each page as a guide for coloring. Softbound Order No. 863 - \$3

DeLuca, C.J. & D.M. DeLuca **Pacific Marine Life. A survey of Pacific Ocean invertebrates**. 66 pages, illustrated. Softbound Order No. 423 - \$3

Deweese, C.M. 1984. **The Printer's Catch: An Artist's Guide to Pacific Coast Edible Marine Life**. 128 pages, 43 color plates and 22 black & white plates. This is the first book to present the work of an American Gyotaku (i.e., Japanese fish printing) artist. Includes fish and shellfish. Narrative covers life history, consumer information and a description of fisheries. Instructions for making your own fish prints. Hardbound Order No. 373 - \$27

Eisenburg, J. **Collector's Guide to Seashells of the World**. The most comprehensive single volume guide to seashells available. There are 158 plates in full color, showing almost 4000 specimens. Characteristics of 142 families are described in detail. One of the most popular books in print today. A must in every library Hardbound Order

No. 138 - \$25

Fielding, A. **Hawaiian Reefs and Tidepools. A guide to Hawaii's shallow water invertebrates**. 103 pages. Filled with full color photographs. Good general reference book. Softcover Order No. 436 - \$10

Galbraith, R. & T. Boehler 1974. **Subtidal Marine Biology of California**. Naturegraph Publishers, Haldsburg, California, 128 pages, 15 color plates, many black & white photos, drawings. Special emphasis on Southern California fish and invertebrates. ISBN 0-87961-027-1 Cloth Order No. 348H - \$12, ISBN 0-87961-026-3 Paper Order No. 348S - \$6

Gillette, K. & J. Yaldwyn **Australian Seashores in Colour**. 112 pages, 113 photos in color and B&W. Excellent photos useful for identification of the animals found in Australian waters. A good value. Hardbound Order No. 405 - \$7

Golden Book **Animals of the Sea - A Golden Stamp Book**. There are 48 full color stamps showing creatures of the mysterious undersea world, plus 48 pages of information and line drawings. Special reading for children. Softcover Order No. 449 - \$3

Gosner, K.L. **A Field Guide to the Atlantic Seashore**. Houghton Mifflin Co., 329 pages, 23 color photos, 41 black and white plates. Good guide to the intertidal plants and animals of the Atlantic coast. Softbound Order No. 161 - \$10

Gotshall, D. & Laurent **Pacific Coast Subtidal Marine Invertebrates**. 161 of the commonest invertebrates, each clearly illustrated with a color photograph showing the animal in nature. Also short descriptions of every animal outlining color, shape, anatomical details, typical habitats, depths and geographical range. Softbound Order No. 425 - \$13

Gotshall, D. **Marine Animals of Baja California**. Sea Challengers, 213 pages with color photos throughout. Field guide to the nearshore marine fishes and invertebrates that occur from Cedros Island, Baja California to Cabo San Lucas and up into the Sea of Cortez to Bahia de Los Angeles. Size, habitat and range. Softbound Order No. 182 - \$18

Greenberg, I. & J. Greenberg **Sharks and other dangerous sea creatures**. The vivid illustrations and accurate text in this book show potential dangers of sharks and what to do when confronted by them. 64 pages, Softbound Order No. 452 - \$5

Greenberg, I. **Guide to Corals and Fishes of Florida, Caribbean and Bahamas**. 260 species of corals and fishes are shown in full color with accurate and easily understood text. 64 pages. Softcover Order No. 186 - \$5

Greenberg, J. & I. Greenberg, **The Coral Reef**. Full color photos of corals, fishes and sea life of Florida, the Caribbean and Bermuda. Each photo explained. 110 pages. Good quality. Softcover Order No. 225 - \$10

Greenberg, J. & M. Greenberg, 1983. **The Radiant Reef**. 20 oversize full color pages. Dive facility directory for the Caribbean. Softcover Order No. 107 - \$4

Grzimek, H.C.B. 1984. **Animal Life Encyclopedia, Vol. 3, Molluscs and Echinoderms**. 540p., hundreds of color illustrations. Complete coverage of the marine shells, some land shells, bivalves, squids, ctenophores, starfish and squirts. Beautiful large volume translated

from the original German. Should be in every collector's library. Hardbound Order No. 106H - \$58; Softbound Order No. 106S - \$35

Hall, F.W. **Hall's Shells of the Florida Coasts**. This perennial favorite is now enhanced with 8 pages of color photos. Identifies 106 shells in a handy take-along size book. 32 pages, 5-1/2" x 8-1/2" format. Softcover Order No. 242 - \$3

Hamilton, D. **Catch & Cook Shellfish**. Florida waters abound in delicious shellfish. The author teaches you how and where to find them. Recipes for clams, shrimp, crabs, coquinas, turtle, and more. 64 pages, 5-1/2" x 8-1/2" softcover Order No. 248 - \$3

Hardin, C.E. **How to preserve animals and other specimens in clear plastic**. Shows easy method to preserve creatures of beauty including seashells, in plastic to last forever. Covers the preservation of marine animals. Includes all information necessary to make moulds, prepare specimens, seal and polish for a beautiful result. Softcover Order No. 203S - \$4; Hardbound Order No. 203H - \$10

Harris, C. 1961. **Dictionary of Seashore Life**. A "beach dictionary" of seashore animals like jellyfish, barnacles, sea worms, sand dollars, sea cucumbers, starfish, crabs and seahorses. Where they live, what they are, what they look like. 74 pages, 8-1/2" x 11" format. Soft cover Order No. 241 - \$4

Healy, A. & J. Yaldwyn **Australian Crustaceans in Colour**. Here are pictured hundreds of different crustaceans. All nature lovers will find it a colorful introduction to one of the more interesting branches of marine life. 109 photographs including 52 plates in full color. Hardcover Order No. 404 - \$8

Hedgepeth, J. & S. Hinton **Common Seashore Life of Southern California**. Illustrated in color, halftones and line drawings. Names both scientific and common. Excellent field manual. 68 pages, Softbound Order No. 140S - \$5; Hardcover Order No. 140H - \$11

Heller, R. **Designs For Coloring Seashells**. Seashell designs for coloring. Using your own imagination, you can color the shells simply or elaborately. 48 designs. Softbound Order No. 431 - \$4

Hinton, A. **Shells of New Guinea and Central Indo-Pacific**. This is the most popular book we have ever sold in the price range. Complete in every detail with finest color plates throughout. Every described shell is illustrated in color. 99p. with 44 full color plates. Hardbound Order No. 327 - \$19

Hinton, S. **Seashore Life in Southern California (United States)**. Color and halftone illustrations. 181p., Complete introduction to animal life found on California beaches south of Point Conception. A well-prepared paperback by the University of California. Softbound Order No. 295S - \$4

Howorth, P. **Abalone Book**. Complete data on North American *Haliotis*, identification, history, evolution, locality and more. 80 pages, color cover and illustrated in color and halftones. Charts and graphs, very good. Hardbound Order No. 100H - \$11; Softbound Order No. 100S - \$5

Humann, P. **Ocean Realm Guide to Reef Creatures: Invertebrates**. Ocean Realm Publishing Corp., 80 pages. Softcover Order No. 147 - \$11

Humphreys, M. **Seashells of the West Indies**. Coverage of the Jamaican and Caribbean areas. 650 species illustrated in full color

- plus 20 explanatory drawings. 351 pages with chapters on collecting, cleaning and storing. Values for shells with notes on the most valuable West Indian species. Lists 350 minute and inconspicuous species. Hardbound Order No. 287 - \$20
- Iverson, E.S. & R.H. Skinner **How to Cope with Dangerous Sea Life.** A Guide to Animals that Sting, Bite, or are Poisonous to Eat from the Waters of the Western Atlantic, Caribbean, and Gulf of Mexico. 64 pages, many color illustrations. Full color photos identify each of the dangerous creatures one is likely to encounter in these areas. Includes first aid techniques. This booklet will make salt water activities safer and more enjoyable. Softbound Order No. 153 - \$4
- Johnson M. & Snook **Seashore Animals of the Pacific Coast.** Gives full and complete coverage of the animals, seaweeds, and fauna of the Pacific Coast area of North America. Illustrated with color and halftone plates. A valuable and detailed study. 650 pages. Softcover Order No. 292 - \$7
- Johnson, S. **Living Seashells.** A beautifully illustrated book on seashells, and the living animals that inhabit them. It shows and briefly discusses a selection of different shells in their living state. It encourages an appreciation for mollusks as more than simple ornaments, but as beautiful living creatures. 117 pages, 235 individual color plates. Softbound Order No. 480 - \$9
- Jones, S. & A. Gray 1983. **Classification.** A beginner's guide to some of the systems of biological classification in use today. British Museum (Natural History), 32p, halftone and line illustrations, soft cover. Excellent introduction to classification including phenetics, cladistics, and orthodox classification. Includes a glossary of terms and additional reading. Very clear and easy to use. Order No. 962 - \$3
- Kaplan, E.H. **A Field Guide to Coral Reefs of the Caribbean and Florida including Bermuda and the Bahamas.** 289 pages, 16 color plates, 21 black and white plates. Hardcover Order No. 126 - \$19
- Kay, E.A. **Hawaiian Marine Shells.** Reef and shore fauna of Hawaii, Section 4: Mollusca. This is an exceptionally fine work on the mollusks of Hawaii. An extensive study, illustrated in color and halftones. 650 pages. Best seller for Hawaiian shells. Hardbound Order No. 197 - \$38
- Keen, A.M. 1974. **Marine Molluscan Genera of Western North America.** Revised edition. The Veliger review states "This book is a must for every serious shell collector." Hardbound, cloth cover, 208 pages with excellent indexing, fully illustrated in fine halftone photos and drawings. An identification book by Stanford University Press. Order No. 233 - \$21
- Keen, A.M. **Seashells of Tropical West America, 2nd Ed.** This book is THE authority on tropical American shells from the west coast of Mexico, Panama, and Southern California. Every collector of shells from this area cannot afford to be without this book. Large book with finest hard library binding. 1019 pages, fully illustrated with color, halftones and line drawings. Includes an excellent bibliography, index, and maps. Order No. 290 - \$48
- Kellum, A. 1977. **Shellcraft Critters.** 32 pages of well-illustrated instructions on making 15 critters. Pamphlet, 5-1/2" x 8-1/2" Order No. 309 - \$3
- Kellum, Pelosi, Pope & Sexton. **The Book of Shell Craft Instruction, Shellcraft Animals, Shellcraft Critters, Shellcraft Creations,**
- Shellcraft Necklaces.** Set of five shellcraft books to give hours of pleasure. As a set Order No. 961 - \$8
- Kozloff, E.N. **Seashore Life of the Northern Pacific Coast.** An illustrated Guide to Northern California, Oregon, Washington and British Columbia. Univ. Washington Press, 370 pages, 299 color photos., Softcover Order No. 117 - \$20
- Light, S.F., R.I. Smith et al **Intertidal Invertebrates of the Central California Coast.** (Light's Manual). 2nd edition. illus. Hardbound. 716p. Order No. 214 - \$35
- Lindner, G. **Field Guide to Seashells of the World.** More than 1000 different shells of the world are illustrated in full and excellent color. Complete descriptions with all scientific data and common names are given as well. This is one of our best sellers and we highly recommend it to any collector. 271 pages. Softbound Order No. 171 - \$12
- Lippson, A.J. & R.L. Lippson **Life in the Chesapeake Bay.** Johns Hopkins Univ. Press, 229 pages, illustrated. Guide to fishes, invertebrates and plants from Cape Cod to Cape Hatteras. Softbound Order No. 167 - \$14
- Magnotti, G. **Shelling & Beachcombing in the Caribbean and Florida.** Very good coverage of shells and beach life in the area. Tells how, where, even when to look. Heavily illustrated in full color. Some illustrations in halftones. Good quality paperback. Order No. 316 - \$6
- Magruder & Hunt 1979. **Seaweeds of Hawaii.** 116pp., color illus. Order No. 127 - \$10
- McDonald, G. & J. Nybakken **Guide to the Nudibranchs of California.** Over 100 color plates, collecting techniques, photographing techniques, anatomy, biology, and keys to species are included. Covers species found from Alaska through California. Softbound Order No. 189 - \$15
- McKay, F.P. 1968. **Let's go shelling.** 88 pages, 5-1/2" x 8-1/2". Shell collecting has long been both hobby and profitable business for the author. Her primer tells you when, where and how to find shells, and how to clean, display and use them. Softcover Order No. 240 - \$3
- McLachlan, D.H. & J. Ayres **Fieldbook of Pacific Northwest Sea Creatures.** 208p., color illus. Over 200 common marine animals. Animals grouped by common characteristics with notes on similarities. Softbound Order No. 782S - \$10, Hardbound Order No. 782H - \$16
- Melvin, O.G. **1000 World Seashells.** (Rare to common with values). Describes 1000 rare to common species. Over 50 numbered plates in color and halftones. Values are given. Companion book to "Sea Shells of the World with Values". Completely different shell coverage. Hardbound Order No. 353 - \$19
- Melvin, O.G. **Seashell Parade.** Rare shells are shown in excellent halftone photographs (75 full pages of illustrations). Fact filled book that is fine reading. 369 pages. Covers trading with dealers. Hardbound Order No. 275 - \$12
- Melvin, O.G. **Seashells of the World with Values.** Over 1100 shell species are listed with 27 full color pages and 27 excellent halftone pages. Full descriptions with locations and sizes given. Prices of shells are given (only a general guide as prices change). 167 pages. Hardbound Order No. 289 - \$20
- Morris et al. **Intertidal Invertebrates of California.** 34 contributors.
- Lavishly illustrated work with 900 photographs in full color. It is an extensive and detailed study of the creatures living in California's coastal water. Complete coverage of every major group. Coverage extends from Puget Sound, Washington through Baja California, Mexico. Includes Univalves, Bivalves and Nudibranchs with many, many other groups. Oversize hardbound Order No. 271 - \$60
- Morris, P. **Field Guide to Shells of the Atlantic Coast, Gulf Coast and West Indies.** A Peterson Field Guide. Third revised edition. 1033 species illustrated in full color. Many halftone photos. Hardbound. First quality. One of the best guides available and a best seller. Hardbound Order No. 168H - \$16; Softbound Order No. 168S - \$9
- Morris, P.A. **Field Guide to Shells of the Pacific Coast and Hawaii.** The Pacific Coast companion to the Atlantic volume. Peterson Field Guide. 8 full pages of color plates and 64 pages of halftone illustrations. Covers 945 species. Section on the Gulf of California (Mexico). Hardbound Order No. 172 - \$13
- Murray, S. **Shell Life & Shell Collecting.** Explains the best way to approach the hobby of shell collecting. Fully explains the 5 types of mollusks, how to classify and recognize them. Guides you in finding the best specimens and building a first class collection. Illustrated in both color and halftones. 96 pages, color & B&W illus. Hardcover Order No. 313 - \$8
- Oliver, A. **The Larousse Guide to Shells of the World.** (Hamlyn Guide). Excellent! One of our best books on shells for the price. 320 pages with 156 pages of full color photos arranged with descriptions on facing page from photo for ease of identification. Softbound Order No. 190 - \$12
- Parsons, C. 1985. **Dangerous Marine Animals of the Pacific Coast.** Sea Challengers, Monterey, California, 96p., ill. col. cover. SB. A guide to fishes and invertebrates that bite, sting, spine, shock, cut or are poisonous to eat. Includes hazards to avoid, first aid instructions, and where to get medical attention. ISBN 0-936940-03-4 Order No. 185 - \$5
- Passas, G. **Shellcraft.** This craft book gives detailed instructions to make mirrors, flowers, nightlights, magnets, animals, clocks and ornamental items. It will be helpful to those interested in making things from shells. Lists availability of kits for most of the items included in the booklet. 54 pages with 2 full color pages. Softcover Order No. 463 - \$5
- Pelosi, F. & M. 1959. **Shellcraft Instruction.** Detailed instruction on making shell projects. Includes chapters on selling your work and how to charge for it. Illustrated in halftones. Soft cover, 80 pages, 8-1/2" x 11". Best seller. Order No. 311 - \$4
- Pope, P. 1975. **Shellcraft Animals.** Photos, instructions and list of shells & tools needed to make more than 25 interesting animals including Puff, the Magic Dragon. 32 pages, 5-1/2" x 8-1/2", soft cover, well illustrated. Order No. 308 - \$3
- Postcards - Seashell postcards** with color photographs by Pete Carmichael. Several different photos. Eight cards Order No. 163 - \$3
- Powell, A.W.B. **New Zealand Mollusca, Marine, Land and Freshwater.** Covers the entire New Zealand fauna area and refers to every known living species in this region, including 2245 species of marine, freshwater, and land mollusks. 16 full page plates in color, 66 halftone photos and 120 text figures. This is the definitive
- work for the region. Hardbound. Excellent! Order No. 391 - \$64
- Power, A. **Great Barrier Reef.** A look at life in Australia's famous reef, the corals, anemones, fish and man's effect on it. Over 180 color pages and 150 black & white photos. Order No. 442 - \$13
- Radwin, G. & A. D'Attilio **Murex Shells of the World.** Best work on Murex available. 32 pages of full color plates and 200 halftone line drawings. Finest library binding. 500 species fully covered. Best Seller! Hardbound Order No. 249 - \$35
- Rehder, H. **Field Guide to North American Seashells - Audubon Society.** The first all-photographic field guide in full color of seashells or living mollusks. 705 identification pictures in which 671 seashells are covered in full detail with notes on 200 more. Arrangement by shape and color make identification quick and easy. Size and binding make this an excellent guide to travel with and use in the field. Water resistant Softcover Order No. 430 - \$13
- Rhynne, N. **Carolina Seashells.** This guide makes identifying the shells found on North and South Carolina beaches easy. It describes the sea shells when and where to find them, shell lore, fossil shells, starfish, shark teeth and other strange things found on the beaches there. 96 pages, 90 illustrations. Order No. 450 - \$5
- Rice, T.C. 1985. **Ninth Edition. Sheller's Directory of Clubs, Books, Periodicals and Dealers.** The latest edition of this informative reference filled with useful information on shell club addresses, basic shell books, shell periodicals and shell dealers. The book is so useful and so inexpensive that it is ridiculous to be without a current copy. Paperback. Order No. 315 - \$4
- Rice, T.C. **Catalog of Dealers Prices - 8th edition.** A very complete listing of retail prices charged for marine shells by dealers world wide. Listings by families, not illustrated. Also includes a section on land snails. Order No. 130 - \$10
- Richards, D. **South African Shells, a Collector's Guide.** This handy-sized, practical book allows instant identification of 527 South African shells. Each is illustrated with full-color photographs and almost every one is shown life size. Each identification plate is numbered to correspond with its description in the text for simple identification and cross-referencing when "out in the field". 160 pages. Hardbound Order No. 439H - \$15.00, Softbound Order No. 439S - \$10
- Ricketts, E. & Calvin **Between Pacific Tides.** 4th Ed. 22 full color pages. Total of 614 pages, large hardbound, first quality. A most complete work on intertidal life of the Pacific Coast of North America. Shells and plants are covered as well as other tidepool and tidal life. Many charts, graphs and tables. Hardbound Order No. 113 - \$20
- Robertson, R. 1985. **Archaeogastropod Biology and the Systematics of the Genus Tricola (Trochacea: Tricolitidae) in the Indo-West-Pacific.** Monogr. Mar. Moll. (3):1-103, 95 pls., 10 tabs., 11x8.5", 3-hole punched for binder. Order No. 101 - \$19
- Rogers, J. **The Shell Book.** A recognized authority on shells of the world. Illustrated in color and halftones. Large hardbound volume with 503 pages. 412 photos in black & white and 67 in color. This is an older book that has retained its popularity. Excellent value! Order No. 300 - \$15
- Romashko, S. 1984. **Shark Lord of the Sea.** Windward Publishing, Miami, Florida, 64 pages, color, halftone, and line illustrations. Includes facts, folklore, attacks,
- defenses, and fishing information. Softcover Order No. 238 - \$4
- Romashko, S. **Coral Book.** A guide to identifying corals of the world. 64 pages. Color illustrated showing living corals and corals cleaned for display. Excellent booklet. Softbound Order No. 146 - \$3
- Romashko, S. **Living Coral.** Full color photos. 64 pages. Covers the reef inhabitants as well as full identification of the corals. Explains how to clean and prepare corals for display. Recommended. Softbound Order No. 223 - \$4
- Romashko, S. **The Complete Collector's Guide to Shells & Shelling.** Windward Publishing, Miami, Florida, 112 pages, illustrated with color photos and line drawings. Shells from the waters of the North American Atlantic and Pacific Oceans, Gulf of Mexico, Gulf of California, Caribbean, Bahamas and Hawaii. Soft Cover Order No. 237 - \$6
- Romashko, S. **The Magic of Seashells.** A delightful shell book for children. 80 seashells in full color and many shells to color. Written to interest and educate the child from 5-12 years. Interesting descriptions. Softcover Order No. 228 - \$3
- Romashko, S. **The Shell Book.** 64 pages, 6" x 9" size, all-color guide to collecting and identifying shells of Florida, the Gulf and the Caribbean. In addition to shells there is also coverage of starfish and other tidepool animals. Consistent good seller. Softcover Order No. 301 - \$4
- Sabelli, B. & H.S. Feinberg **Simon & Schuster's Guide to Shells.** A very complete and extensive guide, fully color illustrated with hundreds of finest quality color photos. Has all necessary information on size, distribution, appearance and other data. An exceptionally fine book. Hardbound Order No. 686H - \$23; Softbound Order No. 686S - \$10
- Scharp, H. **About Sharks.** Answers your questions about sharks. Colored cover paperback well illustrated in halftones. Answers all your questions about these predators. 65 pages, very interesting. Softcover Order No. 102S - \$5; Hardcover Order No. 102H - \$11
- Senders, J. & R. Senders **Shells. A collector's color guide.** Hippocrene Press, 191p., 144 color pls. Color book with special keys for each species included. Hardbound Order No. 93 - \$13
- Sexton, G.V. 1981. **Shellcraft creations.** Try these 16 designs for elephants, owls, parrot dishes, horseshells, and more - all made from shells you've found on the shore. 32 pages, 5-1/2" x 8-1/2", soft cover Order No. 246 - \$3
- Sexton, G.V. 1981. **Shellcraft Necklaces.** Another "Short Time Projects for Beginner's" booklet with 19 shellcraft necklaces with full instructions for making each one. 32 pages, 5-1/2" x 8-1/2", soft cover Order No. 247 - \$3
- Sharabati, D. **Red Sea Shells.** 128p. 49 color illustrations. This softbound book provides excellent illustrations of several hundred gastropods and bivalves, 2 cephalopods, 2 chitons, and 3 scaphopods. Living mollusks are not shown except for 18 opisthobranchs. Introductory material on classification of shells, features of the Red Sea and particular molluscan habitats. Complete with shell cleaning information, glossary, bibliography, index to common and scientific names. The demand for this book has been so great that we have had trouble keeping it in stock. We now have a good supply. Softcover Order No. 855 - \$18
- Sharabati, D. **Saudi Arabian Seashells.** This book was written

FEBRUARY 1986

CURRENT EVENTS

Schedule
Shows & Conventions

1986

Central Florida Shell Show January 17-19, Orlando, Florida. Contact: Les Easland, 5803 Fernhill Dr., Orlando, FL 32808, or call 305-298-2813

Southwest Florida Shell Show January 17-19, Ft. Myers, Florida. Contact: John Vaughan, Box 05962, Tice, FL 33905, or call 813-693-1913

Greater Miami Shell Show January 23-26, Miami, Florida. Contact: Norris McElia, 905 N.W. 15th Ave., Miami, FL 33125, or call 305-642-1504

Astronaut Trail Shell Show January 24-26, Melbourne, Florida. Seventh Shell Show at the Melbourne Auditorium, 625 E. Hibiscus Boulevard, Melbourne, Florida. The show will be open to the public from 10 am to 6 pm Friday and Saturday and from 10 am to 5 pm on Sunday. Set up time for exhibitors and dealers will be on Thursday, January 23, 1986, from 9 am to 1 pm, with judging immediately following at 1 pm. Contact: Jim & Bobbi Cordy, 385 Needle Blvd., Merritt Island, FL 32953, or call 305-452-5736

Broward County Shell Show January 31-February 2, Pompano Beach, Florida. Contact: Jean Andrews, 451 S.E. 15th Ave., Pompano Beach, FL 33060, or call 305-782-2837

Naples Shell Show February 14-16, Naples, Florida. Contact: Terry Fitzgerald, 660 York Terrace, Naples, FL 33942, or call 813-598-2579

St. Petersburg Shell Show February 15-16, St. Petersburg, Florida. Contact: Bob & Betty Lipe, 440 75th Ave., St. Petersburg Beach, FL 33706, or call 813-360-0586

Sarasota Shell Club February 21, 22, and 23, Sarasota, Florida. Contact: Bet Hamilton, 1240 Primrose, Venice, Florida 33595, or call 813-497-2809.

Sanibel Shell Fair March 6-9, Sanibel, Florida. Contact: Dorothy Putnam, Sanibel Community Center, P.O. Box 72, Sanibel, FL 33957, or call 813-472-2155

Marco Island Shell Show March 12-13, Marco Island, Florida. Contact: Vera Wooley, 930 Montego Court, Marco Island, FL 33937, or call 813-394-1098

Palm Beach Shell Show April 3-6, West Palm Beach, Florida. Contact: Phyllis Diegel, 143 Alcazar St., Royal Palm Beach, FL 33411, or call 305-798-5351

Georgia Shell Show April 11-13, Atlanta, Georgia. Contact: Carl & Rene Beeler, 1868 Gainsborough Dr., Chamblee, GA 30341, or call 404-451-2221

St. Louis Shell Show April 18-20, St. Louis, Missouri. Contact: Alan Gittleman, 4045 Central Lane, Granite City, IL 62040, or call 618-931-1312

2nd International Symposium on Indo-Pacific Marine Biology Guam, Truk & Ponape, Sponsored by the Western Society of Naturalists, June 22 - July 9. Contact: David H. Montgomery, WSN Secretary, Biological Sciences Dept., California State Polytechnic University, San Luis Obispo, CA 93407.

American Malacological Union
Western Society of Malacologists
Joint Meeting, July 2-7, Monterey, California. Contact: Paula Mikkelsen or Margaret S. Mulliner

North American Paleontological
Convention August 10-17, Boulder, Colorado. Contact: Norman L. Gilinsky, Dept. of Geological Sciences, VPI and SU, Blacksburg, VA 24061

Unitas Malacologica Ninth International Malacological Congress, August 31-September 6, Edinburgh, Scotland. Contact: Congress Office, Royal Scottish Museum, Edinburgh, Scotland EH1 1JF

MONDAY	TUE	WED	THU	FRI	SAT	SUN
<div>JANUARY</div> <div>MTWTFSS</div> <div>12345</div> <div>6789101112</div> <div>13141516171819</div> <div>20212223242526</div> <div>2728293031</div>	<div>MARCH</div> <div>MTWTFSS</div> <div>12</div> <div>3456789</div> <div>10111213141516</div> <div>17181920212223</div> <div>24252627282930</div> <div>31</div>			<div>BROWARD</div> <div>SHELL CLUB</div>	1	2
MONDAY 3	4	5	6	7	8	9
MONDAY 10	11	12	13	14	15	16
MONDAY 17	18	19	20	21	22	23
MONDAY 24	25	26	27	28	MARCH	

Broward County Shell Show
January 31-February 2, Pompano Beach, Florida. Contact: Jean Andrews, 451 S.E. 15th Ave., Pompano Beach, FL 33060, or call 305-782-2837

Naples Shell Show February 14-16, Naples, Florida. Contact: Terry Fitzgerald, 660 York Terrace, Naples, FL 33942, or call 813-598-2579

St. Petersburg Shell Show
February 15-16, St. Petersburg, Florida. Contact: Bob & Betty Lipe, 440 75th Ave., St. Petersburg Beach, FL 33706, or call 813-360-0586

Sarasota Shell Club February 21, 22, and 23, Sarasota, Florida. Contact: Bet Hamilton, 1240 Primrose, Venice, Florida 33595, or call 813-497-2809.

Sanibel Shell Fair March 6-9, Sanibel, Florida. Contact: Dorothy Putnam, Sanibel Community Center, P.O. Box 72, Sanibel, FL 33957, or call 813-472-2155

Marco Island Shell Show
March 12-13, Marco Island, Florida. Contact: Vera Wooley, 930 Montego Court, Marco Island, FL 33937, or call 813-394-1098

CLASSIFIED ADS

Advertisers are solely responsible for their material. Rates: \$2.50 per line. Payment must accompany ad copy. 30 characters and spaces per line. Partial lines count as full lines. Display ads within this section \$17.50 per column inch. Current paid subscribers receive a 10% discount on their ads. No other discounts are available. All display copy must be camera-ready. We reserve the right to modify copy to fit paid lines.

SUBSCRIPTIONS

Subscribe to *Shells and Sea Life* and get a free four line classified ad. Send copy with full payment for 1 year subscription. Additional lines \$2.50 each.

FOR SALE — RETAIL

WORLD WIDE SEA SHELLS for collectors. Free Price List. Sea Gems, 2002 Margaret Drive, Wichita Falls, TX 76306

WORLD'S LARGEST ASSORTMENT FOR MEDITERRANEAN SHELL BOOKS, SEA SHELLS, LAND SNAILS EXTINGUISHED FOSSIL SHELLS. 60 page price list free on request. Write to: OSTINI MAURIZIO — C.P. 42 — 00055 LADISPOLI RM — ITALY

FREE PRICE LIST Worldwide specimen shells. Marine, land, freshwater and fossils. Steve Rosenthal, 207 Newton Road, Raleigh, NC 27609 (919) 846-0876 (2-86)

EXCHANGES

W. Vasheck, Astridlaan, 53, B.3700 Tarquere, Belgium, would like to exchange shells with collectors worldwide. About 600 different shells available. Special interest: Strombidae, Cassidae, Olividae & Glycymeritidae. (1-86)

BOOKS FOR SALE

SEASHELL TREASURES BOOKS
1701 Hyland, Bayside, CA 95524. Postage & insurance additional.

Celebonovic, S., G. Grigson, A. Maurois. [Translated by J. Emerson & S.A. Popcock] 1957. **The Living Rocks.** Readers Union, Phoenix House, London, 95p., 64 full page halftone plates. 205 x 285mm, one page torn but complete, hardbound, knocked corners & some wear, dust cover. Order No. 8824 - \$10

Cox, I. [Ed.] 1957. **The Scallop. Studies of a shell and its influence on humankind.** Shell Transport & Trading Co., Ltd., London, 135p., about 96 illustrations, almost all in color. 210 x 280mm hardbound with gold stamped cover. Order No. 1966 - \$30

Daglish, E.F. 1956. **The Seaside Nature Book.** The Country Book Club, London, i-viii + 231p., 8 col. pls., 3 b/w pls., 78 text figs. Includes 3 color & 2 b/w pls. on shells of Britain. 110 x 175mm, clothbound. Order No. 8822 - \$18

Kerney, M.P., R.A.D. Cameron & G. Riley (illus.). 1979. **A Field Guide to the Land Snails of Britain and North-west Europe.** Collins, Glasgow, U.K., p.1-288, 649 ill. (408 col.), 392 distributional maps, line drawings. Excellent coverage of the group. Now out of print, we have a few new copies. Hardbound Order No. 7851 - \$30

Major, A. 1979. **Collecting Fossils.** Illustrations by Barbara Prescott. John Bartholomew & Son Ltd., London, 124p., 219 ill. (line drawings), 195 x 270mm, hardbound, color dust jacket. Order No. 8823 - \$15

FREE CLASSIFIED AD!

Four line classified ad free with your subscription or renewal to *Shells and Sea Life*. Ad copy must accompany subscription payment. Sell or trade those extra shells! Place a WANTED ad for that shell you have been looking for! Wish your wife "Happy Birthday." Offer expires March 1, 1986.

as a layman's introduction to the subject of marine mollusks in general and specifically those of the Red Sea & the Arabian Gulf. It describes what mollusks are and how they are classified, giving scientific and common names. Beautiful illustrations of live animals. Hardcover Order No. 467 - \$33

Siekman, L. 1981. **Handbook of Shells**. 48 pages including 16 in color, 120 shell and assortment of other seashore creatures described. Each shell is illustrated with a line drawing. Very good coverage of the Gulf of Mexico, Southern Atlantic coasts, and the Caribbean. Illustrated in black and white. Good quality paperback. Common and scientific names given as well as other necessary data. Softcover 5-1/2" x 8-1/2" Order No. 196 - \$3

Siekman, L. **The Book of Shells**. If you collect shells, you'll find this book helpful. A line drawing of each shell, plus descriptive information on size, color, habitat and edibility. 250 color pictures. Coverage of the Florida and Caribbean shells. Well illustrated in color and halftones. 8-1/2" x 11" format, 80 pages. Common and scientific names. Softcover Order No. 116 - \$4

Smith, L. **Common Seashore Life of the Pacific Northwest**. 66 pages illustrated with tables, line drawings, 1 color plate. This is a simple and handy guide to the common shore life from Northern California to British Columbia, Canada. Useful not only for identification purposes, it gives details on gathering and cooking foods. Softbound Order No. 846S - \$4.95; Hardcover Order No. 846H - \$11

Snively, G. **Exploring the Seashore in British Columbia, Washington and Oregon**. A Guide to Shorebirds and Intertidal Plants and Animals. Gordon Soules Book Publishers Ltd., 240 pages, 32 color plates, over 100 drawings and Black & white photos. Softbound Order No. 128 - \$13

Spitsbergen, J.M. **Seacoast Life, an Ecological Guide to Natural Seashore Communities in North Carolina**. Univ. North Carolina Press, 112 pages, Softcover Order No. 158 - \$7

Stachowicz, J. 1985. **Diver's Guide to Florida and the Florida Keys**. Windward Publishing, Miami, Florida, 64 pages, color, halftone, and line illustrations. Covers Scuba diving, snorkeling, fresh and salt water diving, treasure hunting, spearfishing, and lobstering. Includes maps and charts for many wreck sites along Florida coast. Soft cover Order No. 239 - \$5

Stahly, G. & S. Stahly **Shellcraft Secrets**. 32 pages of shellcraft ideas including animals, flowers, mirrors, purses and Christmas ornaments. Order No. 482 - \$3

Stahly, G. & S. Stahly **The Sand Dollar**. This concise 32 page book tells what a sand dollar is, its legend. How to find, treat, and work with sand dollars, 28 projects to make with it. A must for those doing craftwork. Order No. 259 - \$3

Stix, H. & M. Stix **The Shell**. One of the most beautiful and revealing presentation of sea shells ever published, with dramatic layout and design, breathtaking color plates and stunning black and white photographs. Covers the shell in history, shell lore from many cultures, and the romance of collecting and the influence of shell forms on art. 203 illustrations, including 82 plates in full color. 188 pages, hardbound library binding with dust cover. **EXQUISITE BOOK!** Coffee table large hardbound edition Order No. 695H - \$55; Smaller hardbound edition Order No. 695D - \$13

Tinker, S.W. 1966. **Pacific Sea Shells & Handbook of Common Marine Molluscs of Hawaii and the South Seas**. Charles E. Tuttle Co., Rutland, Vermont, 240 pages, over 100 halftone plates. An excellent value for a good general reference. Hardcover Order No. 215 - \$10

Vessel, M.F. & H.H. Wong **Beach Birds**. Elementary level introduction to Pacific Coast beach birds. Color sketches. Great for children. Touches on ecology. 32 pages. Soft cover Order No. 421 - \$3

Vessel, M.F. & H.H. Wong **Tide Pools**. An elementary level introduction to tide pools of the West. Includes color sketches of sea life found in tide pools. 32 pages soft cover Order No. 422 - \$3

Vilas, C.N. & N.R. Vilas **Florida Marine Shells**. Very complete, well written book with 12 full page color plates. Some halftone illustrations. Full descriptive data. Hardcover Order No. 173 - \$18

Voss, G. **Seashore Life of Florida and the Caribbean**. This book is a guide to the identification of common invertebrate animals, exclusive of shelled mollusks, of the Western Atlantic. The descriptions are written in simple language. Technical terms are explained. Very informative book. The best we know of for the area at any price. Softcover Order No. 451S - \$10; Hardcover Order No. 451H - \$20

Wagner, R. & R.T. Abbott 1977-1985. **Standard Catalog of Shells**. 3rd. Ed. with supplements up to date. Has complete listing of world's seashells with geographical ranges, values and world records. Each species is numbered to use for your collection numbers. Includes 100's of species added to older editions. Loose-leaf in hard binder for addition of new sections as issued. Illustrations in color and black & white. Complete listing of synonyms. Over 15,000 entries. Large Ring Binder Order No. 343 - \$65

Walls, J. (ed.) **Encyclopedia of Marine Invertebrates**. Beautiful book with hundreds of color photographs and excellent text. Hardcover Order No. 842 - \$50

Walls, J. **Conchs, Tibias and Harps**. An excellent and much needed book on the families for which little information is available. It is

a best seller. hardbound, fully color illustrated. 191 pages. Full locality information, descriptions and all needed data. **Excellent**. Hardcover Order No. 141 - \$15

Walls, J. **Cones, A Synopsis of the Living Conidae**. The newest and most complete coverage of the Cones. Illustrated in full color. This book is the best authority and most complete book on cones now in print. 1011 pages with all color illustrations and full descriptions. Hardcover Order No. 144 - \$40

Walls, J. **Cowries**. 2nd edition. An excellent authoritative book with the latest information about **Cypraea**. 286 pages, all species illustrated in full color. Full description, data, authors, good cross-indexing, synonymic index. Hardcover Order No. 149 - \$25

Walls, J. **Shell Collecting**. This is a general information book about shell collecting. It discusses collecting shells, conditions of shells, grading of specimens and gives helpful hints for collectors. It has many excellent photographs, both color and black & white. Hardcover Order No. 401 - \$5

Walls, J. **Starting With Marine Invertebrates**. Best book for starting the study of invertebrates. Leads the beginner through the beginning phases of study of these amazing creatures. Profusely color illustrated. 160 pages. Hardcover Order No. 346 - \$9

Warmke, G. & R.T. Abbott **Caribbean Seashells**. An illustrated guide to the mollusks of Puerto Rico, Bermuda, lower Florida keys and other West Indian Islands. 348 pages, paperback. Color and halftone illustrations. A popular book at a good price. Softcover Order No. 125 - \$7

Webb, W.F. 1948. **Handbook for Shell Collectors** (revised edition). Lee Publications, Wellesley Hills, Massachusetts, 264 pages, 112 halftone plates, scientific and common name index, conchological abbreviations. Illustrates and

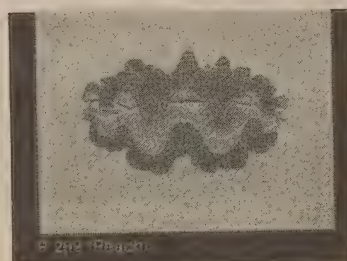
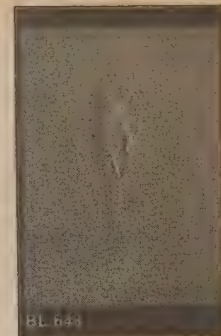
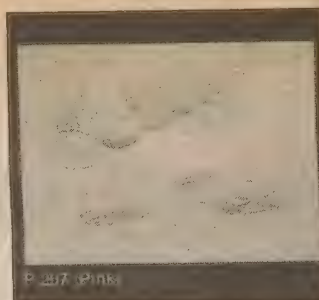
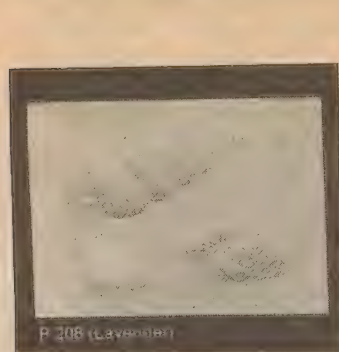
describes over 2,000 marine species. The new edition contains 41 new halftones, illustrating 30 varieties of **Murex**, 241 of **Conus**, 51 of **Voluta** and 131 varieties of **Cypraea**, which were not in the original edition. There are also new pictures of many bivalves and some gastropods. An excellent value. Hardcover Order No. 232 - \$12

Westbrook, C.R.E. **Key to Cleaning Shells**. A very good pamphlet that has all the details on cleaning shells of the Florida-Caribbean area. Information on saving and preparing the meat from the shells. Softcover Order No. 217 - \$3

White, J.S. 1976. **Seashells of the Pacific Northwest**. Binford & Mort, Publishers, Portland, Oregon, 127 pages, many color & halftone plates, glossary, index. Covers 83 of the most available shells from Oregon, Washington, and British Columbia. Includes observations on behavior. An excellent value. Softbound Order No. 216 - \$7

Wood, E.M. **Corals of the World**. A useful book for identifying living corals on Indo-Pacific and Caribbean reefs. Full of general information on formation and distribution of coral reefs and information about each reef coral genus. This 256 page book contains 290 beautiful color photos, 158 black & white photos and over 100 distribution maps. Hardcover Order No. 504 - \$30

Zinn, D.J. **Marine Mollusks of Cape Cod**. 78 pages, illustrated. This compact, paperback booklet will readily serve as an informal introductory guide to the marine mollusks of Cape Cod likely to be found by the casual beachcomber. In addition to the basic information about mollusks and how to make a shell collection, a glossary and 28 recipes for cooking the mollusks are included. Order No. 850 - \$8



Note Cards & Gift Enclosures

Note Cards (mixed designs, 8 per box)
\$7.50 with envelopes.

Gift Enclosure cards - 4 cards \$1.50
(GE-) with envelopes.

If you specify a single design we will try to accommodate you but we must reserve the right to substitute freely since the supplies are limited.

Minimum order is 8 cards per design and \$10.00 per order. Postage and packing are additional.

[illegible]



INFORMATION PLEASE !

SHELLS and SEA LIFE is setting up a comprehensive directory of the who, what, where, how and why's of malacology and conchology. We plan to publish each of these as they are finished in future issues of Shells and Sea Life. Please take the time to fill in the information on these forms and add anything else that you think that others will be interested in. Please include samples of club literature, advertising brochures, announcements etc...

INDIVIDUAL LISTING

Name _____ Phone # _____

Address _____

Contact phone (____) _____ Interest _____

Position held in malacology/conchology _____

Would like to trade _____

We need information on:

SHELL CLUBS and ASSOCIATIONS - SHOWS / CONVENTIONS - DEALERS - STORES - MUSEUMS
- LIBRARIES - RESEARCH LABS - MARINE STATIONS - TRIPS / TOURS - DIVE SHOPS -
BOATS FOR HIRE - BOOK DEALERS - COLLECTION LOCATIONS - PUBLIC AQUARIUMS -
PUBLICATIONS - MARINE PARKS - POSITIONS IN MALACOLOGY - PALEONTOLOGY -
- OTHER.



Please list:

Names _____ Owners _____

Addresses _____

Phone # _____ If open to the public _____ Hours _____

Specialty _____

Publication available _____ Name _____ When issued _____

Dates of special events _____

Additional information _____

Dates of special events _____

Names _____ Owners _____

Addresses _____

Phone # _____ If open to the public _____ Hours _____

Specialty _____

Publication available _____ Name _____ When issued _____

Dates of special events _____

Additional information _____

Please do not list in S&SL _____



Thanks for your help. Sally.

From I.S. Roginskaya: I have some nomenclatorial difficulties with the taxonomy of two species of CORYPHELLIDAE, described from the Pacific Coast of North America. And I cannot solve the problems by means of the literature available.

For some years already, I suspect that *Coryphella fusca* O'Donoghue, 1921, described from Vancouver Island region (O'Donoghue, 1921, pp. 195-197, pl. 3(9), fig. 28, pl. 5(11), fig. 60; from the depth 10-25 fathoms (=18.3 - 45.7m) is to be regarded as a junior synonym of *Himatella trophina* Bergh, 1894, the coryphellid species, described by Bergh, basing on a single specimen, collected by Dall in 1880 near Port Althorp, Alaska, from the depth of 5 fathoms (=9.1m, Bergh, 1894, pp.134-136, Taf. 1, figs. 16-18; Taf. 2, figs. 1-5).

I agree with O'Donoghue (1921 op. cit.) that *Coryphella* sp. Bergh, 1879, described by Bergh, basing only on a single bulbus pharyngeus, dredged by W.H. Dall from the depth 9-16 fathoms (=16.5 - 29.3m) near Adakh Island, Aleutian Islands (Bergh, 1879, p.78, pl. 1, figs. 13-18; pl. 2, figs. 7-8) and *Coryphella fusca* O'Donoghue, 1921 belong to the same species.

Now, to my eye, the similarity of the radula teeth and mandibles of *Himatella trophina* Bergh, 1894 and *Coryphella* sp. Bergh, 1879, is striking. Just only compare the radular teeth: Bergh, 1894, op. cit. Taf. 1, fig. 18; Taf. 2, figs. 4-5 with Bergh, 1879 op. cit. pl. 1, fig. 14, and the jaws and masticatory processes: Bergh, 1894 op. cit. Taf. 1, fig. 16; Taf. 2, figs. 1, 3, with Bergh, 1879 op. cit. pl. 1, fig. 13, pl. 2, fig. 7. The resemblance of the external appearance of *Coryphella fusca* O'Donoghue, 1921 and *Himatella trophina* Bergh, 1894 is very strong: the projecting dorsal brim, broad head, three pairs of long tentacles: oral, propodial and the perfoliated rhinophores, bearing 35 (Bergh, 1894 op. cit.) or 32-38 (O'Donoghue, 1921 op. cit.) delicate ringlets etc. The figure of one row of radular teeth, published by O'Donoghue (1921 op. cit.) for his *Coryphella fusca*, is also very similar to the pictures of radular teeth of *Himatella trophina* Bergh, 1894 and of *Coryphella* sp. Bergh, 1879. The latter, as it was already mentioned was recognized by O'Donoghue (1921 op. cit.) as a synonym of his *Coryphella fusca*.

The perfoliated rhinophores, distinguishing *Himatella trophina* from other coryphellids (known at that time), with simple smooth dorsal tentacles, seemed to Bergh a decisive argument for establishing a separate genus *Himatella* Bergh, 1890, with type species by monotypy *Himatella trophina*, Bergh (1890 p.36). (I don't understand, by the way, why in Russell's "Index Nudibranchia" (1971 p.79) and in Thiele, 1931, p. 453 earlier, the genus is cited as *Himatella* Bergh, 1891? and in "Index to the Opisthobranchia" of Behrens and Long (1981, p. 33) as *Himatella* Bergh, 1892? [ed. — each of us tried to pick the proper date; normally the actual publication year rather than the year printed on the publication]. In consequence of this Bergh had enlarged the diagnosis of his CORYPHELLIDAE including the following phrase: "Rhinophoria simplicia, elongata, raro perfoliata" (Bergh, 1890 op. cit. p.35), or "The Coryphellidae have long, simple (not perfoliated) rhinophores (*Himatella* only forming an exception in this respect" and "the genus *Himatella* finally is separated from the others by its perfoliated rhinophores" (Bergh, 1900, p.30-31) (the same in Danish: Bergh, 1899, p.29).

And naturally the question arises, why O'Donoghue (1921 op. cit.), who synonymized his *Coryphella fusca* with perfoliated rhinophores with *Coryphella* sp. Bergh, 1879, considering only the shape of radular teeth, hadn't discovered the identity of his species (perhaps to my eye only?) with *Himatella trophina* Bergh, described basing on the whole specimen and not only on the bulbus pharyngeus as *Coryphella* sp. Bergh, 1879? The work of Bergh mentioned (1894 op. cit.) was included in the list of literature in O'Donoghue, 1921 op. cit. Later on O'Donoghue (1926) placed the two species: *Coryphella fusca* and *Himatella trophina* in the two separate genera (*Coryphyella* and *Himatella* of the family FLABELLINIDAE. What is even more odd — that is why Bergh himself never indicated his *Coryphella* sp. 1879 as a synonym of his *Himatella trophina*?

The generic name *Himatella* later on was suppressed by Thiele (1931, op. cit., p.453) as nomen preoccupatum, for the new name *Himatina* Thiele, 1931, with type species — *Himatella trophina* Bergh, 1894 (*Himatella trophina* Bergh, 1890 abandoned, being a nomen nudum).

But all these nomenclatorial changes have only historical significance, as later on *Himatina* Thiele, 1931, was synonymized with *Coryphella* Gray, 1850, and *Himatina trophina* (Bergh, 1894) transformed to *Coryphella trophina* (Bergh, 1894) (Marcus, 1961, p.48), and afterwards (Gosliner et Griffiths, 1981) even to *Flabellina trophina* (Bergh, 1894). (But I persist in considering CORYPHELLIDAE as a taxon distinct from FLABELLINIDAE, and *Flabellina* Voigt, 1834 distinct from *Coryphella* Gray, 1850.)

If we only consider the literature for the last 20-25 years, we shall find the specific name *fusca* often used by the specialists (Marcus, 1961 op. cit.; Steinberg, 1963; Hurst, 1967; Bernard, 1970; Sphon, 1972b op. cit.; Robilliard, 1974; Gosliner et Griffiths, 1981 op. cit. etc.). *Coryphella trophina* (Bergh, 1894) was mentioned rather rarely (Marcus, 1961 op. cit.; Marcus et Marcus, 1967 (in the discussion of *Flabellina telja*); Sphon, 1972 op. cit.; Gosliner et Griffiths, 1981 op. cit.), separately, though simultaneously in the same work with *Coryphella fusca* O'Donoghue, 1921. So it is clear that the authors cited admitted the existence of two separate species.

In my material I had six specimens of so-called *Coryphella fusca* O'Donoghue, 1921: one animal provided from Bering Sea, and 5 — from the Sea of Okhotsk (from depths 20-115m) (Roginskaya, 1964, 1969). In the latter work I tried also to prove, that *Aeolis camchatica* Volodchenko, 1941 from Avatcha Bay (East Kamchatka) (Volodchenko, 1941, p.59-60, p.67 (English translation), pl. 3, fig. 6; pl. 4, fig. 6) had to be regarded as a junior subjective synonym of *Coryphella fusca* O'Donoghue, 1921. *Aeolis camchatica* was described basing on a single specimen with highly worn obliterated radular teeth.

In 1974 Robilliard (op. cit.) reported the live *Coryphella fusca* O'Donoghue, 1921 from Alaska. And while the specimens of O'Donoghue (1921 op. cit.) in preserved state were less than 20mm in length, and the specimen of *Coryphella trophina* of Bergh (Bergh op. cit. 1894) — only 8mm, the examples of Robilliard were of a considerable length (from 20-45mm up to 120-140mm), more approaching the lengths of specimens from my material, attaining from 25.5 up to 40mm in length in preserved state (Roginskaya, 1969 op. cit.).

As I had already shown on the material from the Sea of Okhotsk and from the Bering Sea (Roginskaya, 1969 op. cit.), the radular teeth of so-called *Coryphella fusca* O'Donoghue are most variable within one animal as well as among several specimens. But almost invariably I could find 1-2 typical rows of teeth (throughout each radula), identical with the teeth of *Coryphella trophina* (Bergh, 1894) and with *Coryphella* sp. Bergh, 1879, while the other rows sometimes demonstrated the high degree of obliteration. It is a pity that Robilliard (1974 op. cit.) doesn't discuss the radulas of his specimens.

And if we assume *Coryphella fusca* O'Donoghue to be a junior synonym of *Coryphella trophina* (Bergh), it would seem quite natural to expect the numerous specimens of this species at the coast of Alaska (Robilliard, 1974 op. cit.), as the type locality of the latter is exactly Alaska (Bergh, 1894 op. cit.). And if moreover we agree that *Coryphella* sp. Bergh, 1879, as well as the specimens of so-called *Coryphella fusca* O'Donoghue from the Far East of the USSR belong to *Coryphella trophina* (Bergh), we can put together the distributional range of a typical Pacific boreal species, widely distributed throughout the northern part of the Pacific Ocean. His range extends along the north-western coastline of North America from Alaska (Bergh, 1894 op. cit.; Robilliard, 1974 op. cit.) up to Oregon (Sphon, 1972a op. cit., 1972b op. cit.). The species is reported from the Aleutian Islands (Bergh, 1879 op. cit.) and from the eastern coast of the Pacific Ocean: in the Bering Sea (near Kamchatka) (Volodchenko, 1941 op. cit.; Roginskaya, 1969 op. cit.) and in the Sea of Okhotsk (Roginskaya, 1964 op. cit., 1969 op. cit.).

It is interesting to mention one observation of Bergh in connection with this species. Bergh had found in the mouth of the bulbus pharyngeus of *Coryphella* sp. from Aleutian Islands (1879, op. cit. p.78) "half hanging out ... a fine *Caprella*, the body having the length of 6mm." (The whole length of this bulbus pharyngeus was 5mm.) The specimens from my material do not yield to Aleutian animal in voracity. The stomachs of two specimens from the Sea of Okhotsk also contained the food-objects most unusual to *Coryphella* species, known mainly as coelenterate-feeders: the pharyngeal bulbs of small sized Nudibranchia (CUTHONIDAE and CORYPHELLIDAE) (Roginskaya, 1964 op. cit.) In one stomach (the body length of the specimen = 25.5mm) the pharyngeal bulbs of

swallowed nudibranchs numbered as much as ten! The usual food-objects — hydroids, were also present in the stomachs of these cannibalistic *Coryphella trophina* (Bergh, 1894).

The dentition of radular teeth of the specimens of the Far East of the USSR demonstrated the high degree of splitting and obliteration — apparently the result of contacts of radular teeth with hard parts of the swallowed prey. The similar variability of teeth was reported for *Coryphella stimpsoni* (Verrill, 1879), from Maine (Morse, 1971) and from the deep-sea basins of the Sea of Japan (Roginskaya, 1978), feeding on hard-skinned burrowing sea-anemones.

What do you think about it all? Perhaps somebody had already synonymized *Coryphella trophina* (Bergh, 1894) and *Coryphella fusca* O'Donoghue, 1921? Or there exists the opposite opinion defending the validity of both species? But, to my regret, this literature had completely escaped from me.

I want to add that in my six specimens of *Coryphella trophina* (Bergh, 1894) two types of spermatozoa were present in the hermaphrodite gland. The sperm dimorphism in my opinion is a very perspective diagnostic feature of *Coryphella* (Roginskaya, 1963). It would be interesting to know if Alaskan specimens of Robilliard (1974 op. cit.) and the specimens of so-called *Coryphella fusca* O'Donoghue, 1921 from the other parts of the coast of North America demonstrate the two types of spermatozoa? For instance, perhaps, Dr. Sandra Crane, who, according to ON, 1975, vol. 7, no. 3, p.9, had collected in 1975 some *Coryphella fusca* in the Vancouver region, had already studied the histology of hermaphrodite glands of her specimens and can answer?

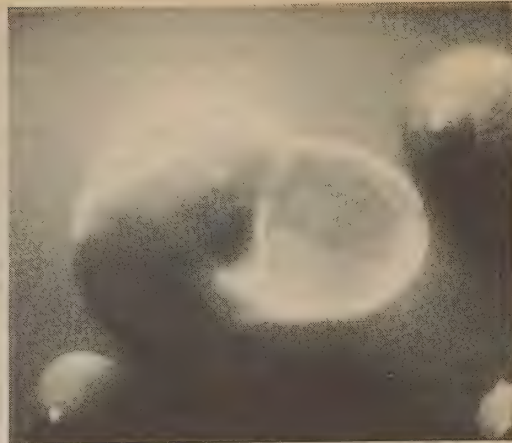
Note: In the first issue of "Shells and Sea Life" for 1985 just arrived, the two species: *Coryphella fusca* and *Coryphella trophina* are also placed separately in the same list! And the common name of *C. fusca* "predatorious aeolid" — isn't it the hint on the voracious and carnivorous habits of this species, first noted by Bergh for *Coryphella* sp. Bergh, 1879, then for the specimens from our Far East (Roginskaya, 1964 op. cit., 1969 op. cit.).

And here is the list of citations I used in the letter: 1. D. Behrens & S. Long 1981. ON, 13(7):27-38; 2. Bergh, R. 1879. Sci. Res. Expl. Alaska, 1(1):127-188; 3. Bergh, R. 1890. Zool. Jahrb. Abt. Syst., Band 5, Heft 1, s.1-75; 4. Bergh, R. 1894. "Albatross". Bull. Mus. Comp. Zool. Harv., 25(10):125-233, pl. 1-12; 5. Bergh, R. 1899. Den Dansk. Ingolf-Exped., Bind 2, no.3:1-46, taf. 1-5; 6. Bergh, R. 1900. The Danish Ingolf Exped., 2(3):1-49, pl. 1-5; 7. Bernard, F. 1970. Syesis, 3:75-94; 8. Gosliner, T. & R. Griffiths 1981. Ann. S. Afr. Mus., 84(2):105-150; 9. Hurst, A. 1967. Veliger, 9(3):255-288; 10. Marcus, Er. 1961. Veliger, 3(suppl.):1-85; 11. Marcus, Ev. & Er. Marcus 1967. Stud. Trop. Oceanogr. Miami, 6:vii+256p.; 12. Morse, M.P. 1971. Biol. Bull. 140(1):84-94; 13. O'Donoghue, C. 1921. Trans. Roy. Can. Inst. 13(1):147-209; 14. O'Donoghue, C. 1923. Ibid. 14(1):123-131; 15. O'Donoghue, C. 1926. Ibid. 15, pt. 2(34):199-247; 16. Robilliard, G. 1974. Can. J. Zool., 52(8):989-992; 17. Roginskaya, I. 1963. Dokl. Akad. Nauk, SSSR, Biol. Sci., 152(5):1256-1259; 18. Roginskaya, I. 1964. Zoologicheskii Zhurnal, 43(11):1717-1719; 19. 1971. Index Nudibranchia. Del. Mus. Nat. Hist., 141p., 21. Sphon, G. 1972a. Veliger, 15(2):153-157; 22. Sphon, G. 1972b. O.N., 4(10-11):53-79; 23. Steinberg, J. 1963. Veliger, 6(2):68-73; 24. Thiele, J. 1931. Handb. Syst. Weichtierekunde. Teil 2, s. 377-778; 25. Volodchenko, N. 1941. Explor. des Mers de l'Orient Extreme de l'URSS, 1:53-68. — Dr. I.S. Roginskaya, P.P. Shirshov Institute of Oceanology, Academy of Sciences of the USSR, 23, Krasikova St., Moscow, USSR, 117218

* * * * *

The Beautiful *Norrisia norrisii* (Sowerby, 1838)

Stephanie Prince, 24242 Via Aquara, Laguna Niguel, CA 92677



Subfamily Gibbulinae
Genus *Norrisia* (Bay 1880)
Norrisia norrisii (Sowerby, 1838)

This is the only species in the Genus *Norrisia* on the West Coast. It can be found from Monterey, California to Baja California, from shore to 13m, living on kelp and other brown algae in the kelp beds.

Norrisia norrisii is a heavy, solid shell orbicular in shape, and reaching a diameter of from 35 to 50mm and 25mm high. The umbilicus is ovate and quite wide and deep, and on the columellar side it is tinged with light green; in great contrast to the glossy black-brown coloring of the shell. Immediately encircling the umbilicus the shell is black. The top part of the shell is generally not as glossy as the underside, and its coloring is more of a faded chestnut brown, particularly in the larger specimens (50mm diameter). Sun bleached specimens turn an orange-tan color, and they are quite attractive.

The interior of the aperture in my younger specimens is pearly, but the older and larger specimens have a rust color in the aperture. The outer lip is bordered by a thin margin of brown and the lip itself is quite sharp and thin. The operculum is round and the outer side is covered with spiral rows of bristles. The inner side is a glossy and smooth black-brown color.

I observed two live 50mm *Norrisia norrisii* on some shoreline rocks at a very low tide in Laguna Beach last winter. They were in a tide pool attached together on the side at the bottom of a pool where there was a clump of brown kelp. The snails were bright red with a cream colored foot. They looked much like our common garden snails, except that their color was red, and they had four evenly spaced tentacle-like hairs on the sides of their bodies.

The juvenile shells (my specimens being 4 to 10mm diameter) are dark brown with white dots starting at the apex and going around the sutures eventually fading into brown on the body whorl. The aperture, again, is pearly and the umbilicus has a hole as do the adult shells. They were found dead, stuck to a sea anemone on the shoreline rocks.

This shell was formerly quite abundant, but it is not so commonly found now because of the disappearance of the kelp beds from large areas along the Pacific Coast of Southern California.

EDWARD T. SCHELLING

BUY
SELL
TRADE

Worldwide Specimen Shells
Marine Freshwater Fossils
I.S.G.S. Standards
Personalized Service
Free Monthly Price List
Shelling with Schelling

P.O. Box 68

Shalimar, Florida 32579 U.S.A.

(904) 244-5646

The Shell Cabinet

12991 Bristow Road, Nokesville
Virginia 22123 U.S.A.

Successor to
M.E. Young
Richard E. Pett
and John Q. Burch

Specimen Shells and Natural History Books

Send for Free List Today

MAD RIVER PRESS
Rt. 2, Box 151-B/141 Carter Lane
Eureka, CA 95501

Offerings In

Botany

Mycology

Zoology

Gardening

Natural History

TERMS OF PREPUBLICATION AND SUBSCRIPTION DISCOUNTS

1. Cash or check must accompany order; purchase orders not accepted.
2. Books will be sent when published.
3. Shipping is included in the price.

MAD RIVER PRESS
Rt. 2, Box 151-B/141 Carter Lane
Eureka, CA 95501

Instructors may request **EXAMINATION COPIES**. A copy of the book will be sent with a regular invoice. If you adopt the book for a class, you need not pay the invoice. If you decide not to adopt the book, you may either pay the invoice or return the book. If you wish an examination copy, please complete the following and mail to Mad River Press, Rt. 2, Box 151, Eureka, CA 95501.

Please send me a copy of _____
to examine for possible adoption in _____ (name of class, number of students expected)
Date by which you must decide what text to use _____
Don't forget to put your name and address in the form provided at the bottom of the opposite page!

PREPUBLICATION OFFER

AMANITA OF NORTH AMERICA
Keys and Descriptions for the Amateur and Professional
by David T. Jenkins (in preparation; due Fall, 1985)

At last a book which will cover the genus for the entire United States. It will include a description of the genus, two keys (one a field key, the other a more detailed one which includes microscopic features), species descriptions, glossary, index, and bibliography. An introductory section will discuss in detail the various types of volvas, the annulus, cap margin, etc., as well as collection and study methods.

About 120 species will be treated, and a color photograph will be provided for each.

approx. no. pages	145	approx. list price	\$22.95	prepublication price	\$19.95
-------------------	-----	--------------------	---------	----------------------	---------

JUST PUBLISHED

MUSHROOMS IN THE GARDEN
by Hellmut Sleinbeck
English translation of *Pilze im Garten*

This unique gardening book tells you how to grow fungi in your garden as ornamental and edible plants.

The book is basically divided into two main sections. The first discusses the requirements, habitat, season of occurrence, and use in the garden for selected species. The second describes in detail how to cultivate the most important edible fungi out of doors, in the cellar, and even on the windowsill. A most useful feature is the extensive lists of species which occur in different habitats, those suitable for growing in the orchard, the vegetable garden, in lawns, under conifers, hedges, or shrubs, etc. A table also gives color, size, habitat, and harvest time.

Illustrated with black and white and color photographs, and line drawings.

The methods described are geared to the home gardener and not the large-scale grower. In contrast to other books on cultivating mushrooms. Although Sleinbeck discusses European fungi, many also occur in North America, and the methods of cultivation would be applicable to fungi of similar biology here.

Highly recommended to people wishing to grow mushrooms on a small scale in their backyards.

151 pages	6 1/2 x 9 1/2	\$9.95
-----------	---------------	--------

1 FUNGI OF SWITZERLAND, Vol. 1 Ascomycetes
Edited by J. Breitenbach and F. Kränzlin
English translation of *Pilze der Schweiz (Champignons de Suisse)*
Band 1 Ascomyceten

The first in a series to be published on Swiss fungi, this book includes 390 species of ascomycetes, chosen as representative of the Flora of Central Europe.

This book gives an overall impression of the quality and beauty of production. The imaginative layout is not only attractive but makes the book easy to use. Each two-page spread is divided into thirds, each devoted to a single species. The right-hand page contains a color photograph of the fungus and line drawings of microscopic features, while the left page contains the descriptions and other information. The photographs are of exceptional quality and include even very rare ascomycetes.

The book was written for both amateur and professional mycologists. It includes a key to species and a glossary.

"What a joy this first volume... is!... a superb photograph of each species in situ... for many these are the first published color photographs of fungi. I am amazed at the comprehensiveness of this flora and above all at the taxonomic skill exhibited by the authors... This is a magnificent contribution to mycology!"

Richard P. Kort, *Mycologia*

313 pages	8 1/2 x 11 hard cover	\$59.50
-----------	-----------------------	---------

Verlag Mykologia Luzern, 1984

2 How to Identify MUSHROOMS TO GENUS I: Macroscopic Features
by David L. Largent; keys by Daniel E. Stuntz

Explains and illustrates macroscopic features. Shows how to recognize clusters of genera which possess the same features (clade types). Provides and illustrated chart which separates genera of each stature type by their spore color. Includes a complete key to genera using only macroscopic features. Contains notes on safe mushroom collecting.

Written for both the amateur mushroom hunter and college classes in mycology and agaricology.

86 pages	5 1/2 x 8 1/2	\$4.95
----------	---------------	--------

3 How to Identify MUSHROOMS TO GENUS II: Field Identification of Genera
by David L. Largent and Harry D. Thiers

Gives a complete description of the macroscopic features used to recognize each Friesian genus of mushrooms in the field, as well as those segregate genera which can be recognized by their macroscopic features. Enables one to identify mushrooms without using a key. Companion to Volume I.

"Both of these books (Vols. I and II) are excellent field guide companions. It is almost like having your own specialist along to clarify and explain the details of identification. Recommended!"

Cotterill

32 pages	5 1/2 x 8 1/2	\$3.95
----------	---------------	--------

4 How to Identify MUSHROOMS TO GENUS III: Microscopic Features
by David L. Largent, Daniel Johnson, and Roy Welling

A thorough treatment of microscopic features of mushrooms and boletes, organized into chapters on hyphae, trunks, cystidia, basidia, and basidiospores. Includes chapters on techniques and materials. Illustrated with photomicrographs and line drawings. Bibliography, glossary, index.

Assembles what was previously available only as a collection of scattered journal articles and expensive references.

148 pages	5 1/2 x 8 1/2	\$8.95
-----------	---------------	--------

5 How to Identify MUSHROOMS TO GENUS IV: Keys to Families and Genera
by Daniel E. Stuntz

Two previously unpublished keys. The first, unique in the English language, relates the Friesian genera to the genera recognized by Singer in the third edition of *Agaricales in Modern Taxonomy*. The second key is to the families, tribes, and genera recognized in the same publication. Both keys use macroscopic and microscopic features.

"The two keys to families and genera, a monumental accomplishment by Dr. Stuntz, will be a valuable tool for students of agaricology for a long time."

Joy Spur, *Pacific Search*

94 pages	5 1/2 x 8 1/2	\$5.95
----------	---------------	--------

6 How to Identify MUSHROOMS TO GENUS V: Cultural and Developmental Features
by Roy Welling

A guide to culturing mushrooms in the laboratory. Covers methods of obtaining pure cultures, recipes and instructions for preparing culture media, characteristics of agarics in culture, and how to perform chemical tests and genetic studies.

Also includes suggested laboratory experiments, ecological exercises, staining procedures, and notes on how to collect specimens for laboratory culture and how to preserve voucher material. Illustrated with line drawings and photographs. Glossary, bibliography, index.

"Numerous cross references are an added bonus... Dr. Welling should be commended for bringing together important information and techniques from a diverse literature... for those who are interested in experimental aspects of agaric taxonomy, this booklet will be a useful guide."

Roy E. Welling
Boston Mycological Club Bulletin

169 pages	7 x 8 1/2	\$8.95
-----------	-----------	--------

7 A Literature Guide for Identifying MUSHROOMS
by Roy and Ann Elizabeth Welling

This much-needed guide presents a brief summary of the contents of articles and books dealing with mushroom identification and gives comments on their usefulness. The Welling includes works published from Fries' time and before to 1979. Listings are by genus within families and by geographical area.

Also contains lists of mycological societies with addresses, mycological journals with their official abbreviations, journals which contain a high proportion of mycological articles, and species illustrated in the *Atlas de la Société Mycologique de France* together with their plate numbers.

"... a welcome and much needed supplement to our mycological literature... As a source book it should be added to your list of best buys."

Herb Saylor, *Mycena News*

121 pages	5 1/2 x 8 1/2	\$9.95
-----------	---------------	--------

8 How to Use MUSHROOMS FOR COLOR
by Milam C. Rice; illustrated by Dorothy Gaebee

A comprehensive manual on how to use mushrooms for dyeing cloth. The book is concerned with dyeing techniques, the colors obtainable from mushrooms, and with the identification of mushrooms useful for dyeing.

Special features are the five colored plates showing the surprisingly wide range of colors possible, and the extended table giving the mushroom species yielding each color with particular mordants and other factors necessary. Also useful are the attractive drawings and descriptions of dye mushrooms, and the discussion of how to identify mushrooms.

The user needs no prior experience in using dyes or in identifying mushrooms.

"The well-organized text, the charts, the color plates, and the skillful drawings make this book a very important manual on the use of mushrooms as dyestuffs."

Clodine Barrett
The Weaver's Journal

145 pages	5 1/2 x 8 1/2	\$9.95
-----------	---------------	--------

9 THE AGARICALES OF CALIFORNIA I: The Genus Amanita
by Harry D. Thiers

The first in a series of books to be published over the next ten years which will eventually include the complete mushroom flora of California.

Contains dichotomous and synoptic keys, and descriptions. All 29 species of *Amanita* which have been collected in California and which have voucher specimens in a valid herbarium up to date of publication are included. Excellent color photographs of 7 species accompany the text.

53 pages	5 1/2 x 8 1/2	\$6.95
----------	---------------	--------

10 THREE-RING BINDER for Agaricales of California

Sturdy vinyl-covered cardboard, deep blue, 8 x 9" by 2 1/4" thick. Title imprinted in silver. Large enough to contain entire series.

415 pages	7 1/2 x 9 1/2 paperback	\$8.95
-----------	-------------------------	--------

11 THE MUSHROOM CULTIVATOR A Practical Guide to Growing Mushrooms at Home
by Paul Stamets and J.S. Chilton

This well-illustrated, clearly written, and detailed guide to growing mushrooms at home will be much welcomed by mushroom enthusiasts.

It contains detailed information on sterile technique and agar culture, preparation of grain spawn and compost and other substrates, the important features of a growing room, trouble-shooting problems in cultivation, identification and control of contaminants and pests, how to grow sixteen species of important edible and psychoactive mushrooms, and many other things one needs to know to grow mushrooms successfully. Includes detailed appendices and a thorough up-to-date bibliography.

Abundantly illustrated with 242 black and white photographs, line drawings, graphs, and diagrams, along with scanning electron micrographs and 23 color photographs.

"For the first time information previously unavailable to the general public is presented in a clear and easy to understand fashion."

(Preface)

415 pages	7 1/2 x 9 1/2 paperback	\$19.95
-----------	-------------------------	---------

Agarikon Press, 1983

12 WILD AND EXOTIC MUSHROOM CULTIVATION IN NORTH AMERICA A Grower's and Gourmet's Guide to the New Edible Species
by Geraldine C. Kaye

This booklet was compiled by a reference librarian to satisfy the many requests she had been getting for sources of information on growing mushrooms. It includes dealers in spawn and cultivation equipment, commercial growers and retailers of popular mushroom species, descriptions of mycological and cultivation-related organizations, book-reviews, and an annotated bibliography. Information is provided for over 20 kinds of edible mushrooms now being grown or offered on the market.

The guide will be especially useful to amateurs interested in raising wild mushrooms or species which have been cultivated in Europe and Asia for many years. It will also prove useful to commercial growers of these unconventional mushrooms.

An excellent companion to *The Mushroom Cultivator and Mushrooms in the Garden* (see p. 3).

32 pages, soft cover	The Farlow Reference Library, Harvard University, 1984	\$4.00
----------------------	--	--------

13 MUSHROOMS and other fungi of Great Britain and Europe
by Roger Phillips

This beautiful book is composed of high-quality color photographs and descriptions of 914 species of fungi. The mushrooms were photographed in the studio on plain pastel-colored backgrounds to show their identifying features and variations among individuals.

The concise descriptions also include information on season, habitat, and edibility. The fungi covered are agarics, Gomphaceae, chanterelles, boletes, polypores, toothed fungi, puffballs, club fungi, jelly fungi, and ascomycetes. Also included are 4 keys to genera of agarics, each to those of different spore colors.

The substantial overlap in North American and European genera will make this book valuable to North American mushroom enthusiasts.

"... superb photographs, design, and printing... as a visual guide the volume is unsurpassed..."

Spores Afford

288 pages, 8 1/2 x 11 1/2, soft cover	Pan Books, Ltd., 1981	\$14.95
---------------------------------------	-----------------------	---------

14 KEYS TO AGARICS AND BOLETI
by Meinhard Moser
English Translation by G. Kibby and R. Rayner of *Kleine Kryptogamenflora Band 1b/2*, fifth edition, 1982 Die Röhrling und Blätterpilze

Dr. Moser's book is a series of keys to 3150 species of polypores, boletes, and agarics of Europe. It is the only comprehensive book covering this wide geographical area. Also included for each species are short descriptions, references to published illustrations, edibility, habitat, and season of appearance. Contains a glossary, 13 pages of line drawings of basidiocarps and microscopic features, a color chart, and index to genera and species.

This translation will be much welcomed by English-speaking mycologists.

535 pages, 8 1/2 x 5 1/2, hard cover	pub. by Roger Phillips, 1983	\$33.95
--------------------------------------	------------------------------	---------

15 700 PILZE IN FARBFOTOS
by Rose Marie Dähncke and Sabine Marie Dähncke (in German)

A companion volume to Dr. Moser's books on ascomycetes and basidiomycetes, which lack photographs. This book is composed of outstanding color photographs accompanied by descriptions of European fungi. The authors follow Moser's species order and nomenclature, providing page references to his books for each species. Included are: boletes, agarics, polypores, puffballs, chanterelles, toothed fungi, coral fungi, jelly fungi, smuts, and ascomycetes.

Even if you do not read German, the beauty and utility of the photographs are worth the price of the book.

686 pages 8 1/2 x 6 1/2, hard cover	AT Verlag, 1980	\$39.95
-------------------------------------	-----------------	---------

16 FUNGI IN FOLKLORE, Fact and Fiction
by W.P.K. Findlay

This unusual book brings a large amount of scattered information about beliefs and practices concerning fungi into one place. The only similar book is *The Romance of the Fungus World* by Rolfe and Rolfe, written in 1928.

Full of fascinating and little-known facts, Findlay's book includes chapters on fungus-lore of the Greeks and Romans; fairy rings, witches, and ghosts; ergotism and the vegetable fly; fungi and sex; use of fungi as poisons; use as hallucinogens; and mystic uses of the fly agaric in the east, among other things.

The book is written in an informative and lively style about an intriguing subject. It will make excellent reading for all mushroom enthusiasts and people interested in folklore and strange beliefs.

about 80 pages, 9 1/2 x 7 paperback	Richmond Publishing Co., Ltd.,	\$12.85
-------------------------------------	--------------------------------	---------

17 PLANT GROWTH SUBSTANCES
Chemistry and Physiology
by L. J. Audus

Written for the advanced student, this book deals with the chemistry, metabolism, general physiology, and mode of action of substances which regulate plant growth, both natural and synthetic.

Its main emphasis is on the four major groups of regulators—the auxins, gibberellins, cytokinins, and the natural inhibitors—but it deals also with ethylene, synthetic growth retardants and inhibitors, reproductive hormones, allelopathic substances, and soil growth factors, among other topics. The control of growth by regulating natural hormone levels, and theories of the mechanism of growth regulators are also discussed.

Also included are figures, tables, a glossary, extensive bibliography, and index.

506 pages hard cover	Richmond Publishing Co., Ltd., 1972	\$46.95
----------------------	-------------------------------------	---------

18 THE BULB BOOK A Photographic Guide to over 800 Hardy Bulbs
by Martyn Rix and Roger Phillips

In this lovely and informative book species from all over the world, including North America, are shown. Plants with corms, tubers, and rhizomes, as well as true bulbs, are included, both monocots and dicots.

An exciting feature of the book is the numerous outstanding and informative shots of wild species in their native habitats, especially fascinating to the gardener who has only seen the plants in cultivation. Most of the other photographs are of whole plants in flower, including underground parts, arranged on plain backgrounds in the studio. Important cultivars of popular bulbs such as daffodils and tulips are also shown, but unlike most books the emphasis is on natural species.

Written for both the gardener and the wild-flower enthusiast.

"... many high-quality photos... a very good value and worthy addition to any bulb-lover's library."

Martyn Rix
The Bulletin, Bend, Oregon

192 pages, 8 1/2 x 11 1/2, soft cover	Pan Books, Ltd., 1981	\$14.95
---------------------------------------	-----------------------	---------

19 WILD FLOWERS OF BRITAIN
by Roger Phillips

This book, the first in the series of natural history books, sets the stage for the quality of design and production of the others. In the author provides outstanding photographs of over 1000 species of flowering plants, including trees, and shrubs. The majority of photographs show plants arranged on a plain background in the studio. However, many were taken in nature.

The species are arranged in order of flowering, instead of by family, as an aid to people unfamiliar with families. The family of each species is given, along with information on distribution, habitat, abundance, season of flowering, size, and notes on folklore and uses. Also included are indexes to the plants by family, common name, and scientific name.

192 pages, 8 1/2 x 11 1/2, soft cover	Pan Books, Ltd., 1977	\$14.95
---------------------------------------	-----------------------	---------

20 VASCULAR PLANT FAMILIES
by James P. Smith, Jr.

A textbook for students in plant taxonomy. Treats the vascular plants of North America, with emphasis on the flora of the United States. All families with native species are included, plus some selected exotic families of economic or ornamental importance. Summarizes recognition characters for each family. Tables and charts compare important features of different families.

Includes introductory chapter on the taxonomic hierarchy and scientific names, an illustrated survey of botanical terms, an extensive list of regional flora and specialized treatments, notes on how to collect and preserve specimens, glossary, index. Profusely illustrated with 109 plates of line drawings by Kathryn Simpson.

Used as a text by over 100 colleges and universities.

320 pages, 7 1/2 x 8 1/2		\$10.95
--------------------------	--	---------

21 Keys to the Families and Genera of VASCULAR PLANTS In Northwest California
by James P. Smith, Jr. and John O. Sawyer, Jr.

Covers the area from Oregon to the southern border of Mendocino County, and from the coast eastward to Redding. Includes not only native genera, but introduced ones as well. Includes keys based on reproductive characters, as well as keys to conifers and broadleaved woody plants based on vegetative features. Also includes notes on habitat and salient features of each plant, a list of rare and endangered plants of the region, an appendix illustrating some basic botanical terminology, and references.

The book should be useful to plant taxonomy students, foresters, people conducting environmental-impact studies, and wildflower enthusiasts.

202 pages, 5 1/2 x 8 1/2		\$8.95
--------------------------	--	--------

22 A Key to the Genera of GRASSES of the Conterminous United States
by James P. Smith, Jr.

Covers all genera in the 48 states. Includes section on structure of the grass plant, references to Hitchcock and Chase's *Manual of the Grasses of the United States* for each genus, illustrations, glossary, and references to the taxonomic literature arranged by state. Useful for college courses in plant taxonomy, agrology, and range management.

81 pages, 5 1/2 x 8 1/4
\$8.95

23 GRASSES, FERNS, MOSSES & LICHENS of Great Britain and Ireland
by Roger Phillips

A companion volume to *Wildflowers* (see p. 8), this book contains the plants which the author could not include there: 162 species of grasses, sedges, and rushes, 58 species of ferns, horsetails, clubmosses, and quillworts, 140 species of mosses and liverworts, and 96 species of lichens.

This volume is arranged like the others, with color photographs of each species taken either in the studio or in nature, and information on distribution, habitat, abundance, reproductive season, and uses, and notes on folklore and uses.

A most unusual and useful feature of the book is its inclusion of representatives of the little-photographed mosses and lichens. It will contribute greatly to making these beautiful and often overlooked plants better known to nature lovers.

191 pages, 8 1/2 x 11 1/2, soft cover
Pan Books, Ltd., 1980, \$14.95

24 LIVING WITH PLANTS A Gardener's Guide to Practical Botany
by Donna N. Schumann

Written for students in college, adult-education, or high school classes in gardening and horticulture, and for the home gardener. Emphasizes the "why" of gardening techniques by presenting in a cheerful and informal style a botanist's approach to the methods of growing plants and incorporating them into everyday living. Numerous drawings add to the beauty and utility of the book.

Reader needs no previous course work in botany or horticulture. The book begins with essentials of plant structure, function, and ecology, and builds on these to explain the why of gardening methods. While designed for the beginner, the book contains much detailed and specific information which would be of use even to experienced gardeners.

"The author has done an excellent job of presenting the background of botany and horticulture which should be part of the basic knowledge of any good gardener."

Gilbert S. Donnell's
American Horticulturist

325 pages
7 1/2 x 9 1/2
\$13.95

25 The Biology of the BROMELIADS
by David H. Benzing

A comprehensive treatment of the structure, function, and ecology of bromeliads, including techniques for growing them. The author assumes only a rudimentary knowledge of chemistry and basic biology. Technical words are defined where they first appear in the text and in the glossary.

The intent of the book is to bridge the gap between the highly technical literature on bromeliads (most taxonomic for the specialist, and the hands of simple publications (mostly horticultural) for the layman. The book is "designed for" the serious but nonprofessional grower, and the botanist, much of the information provided here is essential to the serious grower in the sense that the best practice of any art is based on a thorough knowledge of fundamentals." (from Preface)

305 pages 7 1/2 x 9 1/2
\$14.95

BROMELIADS for Home, Garden and Greenhouse
by Werner Reuh
English translation of *Eremolen* by Peter Temple and Harvey L. Kendall

A standard reference work, divided into two parts. The first covers the biology of bromeliads, including their native habitats, morphology and life cycle, and methods of cultivation. The second treats the classification of bromeliads and includes keys to genera and to species of *Tillandsia*, along with descriptions of genera and important species.

Beautifully produced. Bromeliads includes 134 color photographs, 315 black and white photographs, and 90 quality line drawings.

"...valuable because it covers the entire field of bromeliads..."
Journal of the Bromeliad Society

445 pages
9 1/2 x 11 1/2 hard cover
Blondford Press, 1979 \$104.95

27 BUTTERFLIES & MOTHS in Britain and Europe
by David Carter
designed by Roger Phillips

This beautiful volume is truly a work of art, as well as being a comprehensive guide to over 300 species of Lepidoptera. Representatives of each species are shown both in the natural habitat and spread out over a plain blue background to show the features more clearly. The habitat shots, striking for their beauty and quality, include the larvae, pupae, and even eggs of some species.

Also included is a long introductory section on structure, life cycle, classification, behavior, food, habitats, collecting and studying, and other topics. The species entries include information on distribution, habitat, abundance, life cycle, and the food and appearance of the caterpillars. An index of food plants is also included.

192 pages, 8 1/2 x 11 1/2 soft cover
Pan Books, Ltd., 1982
\$14.95

28 BIRDS of Britain and Europe
by Nicholas Hammond and Michael Everett
designed by Roger Phillips

All the photographs are of birds in their natural habitats and often include both sexes, the young, and nests. An unusual feature of this volume is the striking photographs of the various habitats of the birds included.

Each species entry includes (in addition to the photographs) a distribution map, a silhouette of the bird, and information on identification, voice, habitat, food, and breeding habits.

A fascinating book for bird and wildlife enthusiasts in North America who have heard of many of these birds, but have never seen them.

256 pages, 8 1/2 x 11 1/2 soft cover
Pan Books, Ltd., 1980
\$14.95

29 WILD FOOD A Unique Photographic Guide to Finding, Cooking and Eating Wild Plants, Mushrooms and Seaweeds
by Roger Phillips

This imaginative and unusual book is not only a guide to the common edible British plants and traditional folk recipes for preparing them, but also a guide to the more rarely eaten plants including the delicious and nutritious mushrooms and seaweeds.

The book is primarily composed of beautiful photographs of the plants and some of the prepared dishes placed in nature among the wild-growing plants in very artistic and water-maturing arrangements. Accompanying the photographs are the recipes and contemporary history, distribution and time of appearance of the plants, and fascinating bits of information. This book is not meant to be an identification guide, and so would make a good companion to the mushroom and wild flower books (see pp. 7 and 8).

159 pages
8 1/2 x 11 1/2 soft cover
Pan Books Ltd., 1983
\$14.95

30 JARROLD NATURE SERIES

We are offering a package of four booklets in this British series. They contain interesting introductory material plus color illustrations of selected species along with commentary.

British Fungi (book 1), by E. A. Ellis, includes 50 species of agarics, boletes, polypores, toad fungi, jelly fungi, and fairy clubs, and shows several rare or little-known species in color for the first time.

British Fungi (book 2), by E. A. Ellis, includes 50 species of gasteromycetes, rusts, smuts, ascomycetes, a few molds, and a slime mold.

Common British Lichens, by Frank S. Dobson, includes 45 species of lichens. This would nicely supplement Dobson's *Lichens* (see below).

Edible and Medicinal Plants, by Frank S. Dobson, contains 46 species of (mostly) flowering plants with interesting facts on their use, past and present. This would make a good companion soft cover, lot of 4 booklets \$3.95

OFFERINGS IN LICHENOLOGY
(all published by Richmond Publishing Co., Ltd., Surrey, England)

31 LICHENS An Illustrated Guide, second edition, 1981
by Frank Dobson

Written by a well-known British lichenologist, this work deals with about 450 British lichens, including the ones most likely to be found there and a selection of rarer ones. Most of the book is devoted to the species entries, which consist of a description, notes on habitat and tolerance of pollution, and a distribution map. A special feature is the black and white photographs, which, along with fine line drawings of microscopic features, accompany most descriptions.

Also provided are an illustrated guide to the basic lichen forms and a tabulated guide to the genera of each form, key to species of each genus, glossary, and 4 color plates of 24 species.

"...a long way toward filling the void between the small books and the more advanced treatises... an excellent and most welcome addition to books on lichen identification."

G.W. Ferry, *Critica Book News*

320 pages
soft cover, waterproofed
5 1/2 x 8 1/2, \$25.25

32 Introduction to BRITISH LICHENS
by Ursula K. Duncan, assisted by P.W. James

This book contains keys and descriptions for the identification of the great majority of lichens a person will encounter in Britain. An essential work of reference for the student and advanced worker, this book will also be of great value to the amateur.

Contents include: the structure of lichens, classification, collection, and preservation of specimens, ecology and species lists related to habitat, identification techniques, keys to genera and species, descriptions of species with characteristic useful in field identification, comments on habitat, glossary, extensive bibliography, 128 plates of species, and index.

292 pages, \$24.95

33 LICHENS by A.L. Smith

This is a reprint of one of the most outstanding works on lichens ever to have appeared. First published by Cambridge in 1921, it remains the only work in English providing a comprehensive account of all aspects of lichenology, and thus it retains its importance for the English-speaking world. Of particular value are the detailed accounts of the history of lichenology, discussions of the anatomy and morphology of lichens, and the taxonomic section, which is the only key in English to the world's lichen families and genera. It is also an invaluable reference to the literature on lichens.

To bring this reprint up to date, Dr. D.L. Hawksworth added lists of further reading, a new introduction, and a supplementary index with changes in nomenclature since 1921.

The reappearance of this title makes available a work essential to all who are interested in lichens.

about 500 pages, \$38.95

34 LICHENOLOGY IN THE BRITISH ISLES 1568-1975 A Historical and Bibliographical Survey
by D.L. Hawksworth and M.R.D. Seaward

A comprehensive account of the development of lichenology in the British Isles from the earliest records to the present, illustrated by facsimiles of selected bits, portraits, etc. The alphabetical bibliographic listing of all known works which include British lichens. Gives approximately 2,700 titles with their full bibliographic citations. A standard work of reference for the history and bibliography of British lichens.

about 240 pages, \$65.95

35 NOVA PLANTARUM GENERA IUXTA TOURNEFORTII METHODUM DISPOSITA
by P.A. Micheli

A limited facsimile edition of 200 copies of a botanical classic. A lavishly illustrated work, first published in Florence in 1729. Particular attention is paid to cryptogamic plants, which are described and engraved to a standard exceeding most preceding works. Micheli's illustrations are extensively listed in the early books on nomenclature of fungi and lichens (e.g. Fries, *Systema Mycologicum*, 1821-32; and Linnaeus, *Species Plantarum*, 1753). A short introduction to the reprint is provided by Dr. D.L. Hawksworth of Kew.

about 480 pages, \$89.25

36 LICHENOGRAPHIA UNIVERSALIS
by E. Acharius

A limited facsimile edition of 175 numbered copies of this classic work on lichens first published in 1810. Erik Acharius (1757-1819) laid the foundations for the scientific study of lichens. *Licheno-graphia Universalis* was his major work, in which he described his terminology in detail and presented a comprehensive taxonomic treatment (including notes on ecology and distribution) of the lichens then known throughout the world. In constant use by lichen taxonomists, this book has become extremely rare and difficult to obtain. A valuable introduction to the reprint is provided by Dr. O. Wikström, University of Helsinki.

about 720 pages, \$104.95

37 SYNOPSIS METHODICA LICHENUM
by E. Acharius

A limited facsimile edition of 200 numbered copies of the last major work of Acharius, first published in 1814. Comprises descriptions of all lichen species then known from throughout the world. Many are described for the first time in this book, including some from N. America. Includes a portrait of Acharius and a short introduction by Dr. D.L. Hawksworth.

about 424 pages, \$89.95

38 SPECIMEN OF A LICHENOGRAPHIA BRITANNICA
by Dawson Turner and William Borrer

A limited facsimile edition of 200 numbered copies of an important work on British lichens, published in 1839. Although incomplete, this book is important in including some of the most astute descriptions and comments on crustose lichens and the Gallicies to appear at that time, and in incorporating descriptions of many new species and varieties not previously recognized in Europe. Includes an important new introduction by Dr. D.L. Hawksworth and Dr. M.P.D. Seaward.

about 264 pages, \$58.95

39 PLANTARUM CRYPTOGRAMMICARUM BRITANNIAE
by J. Dickson

A limited facsimile edition of 175 numbered copies of a classical work first issued in four fascicles in 1785-1801. Many new lichens, mosses, and fungi were described and illustrated for the first time in this work, which thus remains of continuing importance to those concerned with the taxonomy of these groups today. Illustrated by fine engravings from paintings by James Sowerby, well-known illustrator of English Botany (1790-1814) and *Coloured Figures of English Fungi* (1799-1815). Includes a short introduction by Dr. D.L. Hawksworth.

about 160 pages, \$67.25

THE OUTER SHORES
1. Ed Ricketts and John Steinbeck
Explore the Pacific Coast
edited by Joel W. Hedgpeth

The first of two volumes of selected writings of Ed "Doc" Ricketts concerning his studies in marine biology and his friendship with John Steinbeck. Discusses their biological and literary collaborations. Describes their planned venture to the shores of British Columbia and Alaska and includes Ricketts' travelogue of his 1947 cruise to these coasts. Hedgpeth's introduction describes their lives in Pacific Grove before and after publication of *Sea of Cortez* and *Cannery Row*. Illustrated with maps and photos from Ricketts' personal album.

"...the work will be welcomed by those who want to read about good science and good literature. We have here a delightful and most unusual book about two great men."

Michael T. Ghiselin, *Science*

128 pages
5 1/2 x 8 1/2
\$8.95

THE OUTER SHORES
2. Breaking Through
edited by Joel W. Hedgpeth

Selections from journals of Ed Ricketts. The best years of his friendship with John Steinbeck (1939-1942), from the journey to the Sea of Cortez to the writing of *Cannery Row*. Includes Ricketts' serious essays on marine biology and his philosophy of "breaking through." Letters from Ricketts to Steinbeck. Hedgpeth examines Steinbeck's reaction to Ricketts' death.

"You have just caught the quality of Ed's manner of life and of Ed himself. It's a lovely book."

Joseph Campbell
New York, N.Y.

162 pages
5 1/2 x 8 1/2
\$9.95

42 Handbook to the Orders and Families of LIVING MAMMALS
by Timothy E. Lawlor

New enlarged edition. An illustrated manual for laboratory and museum, with keys and diagnoses for all orders and families. Distinguishes characteristics of orders and families arranged in outline form, with characters unique to the taxon set off from the others. Easy cross-referencing to same characters in other families.

Includes introductory chapter on the mammalian skeleton, brief notes on the ecology, natural history, and distribution of orders and families, glossary, bibliography, and index to families. Illustrations of all families by Kathryn Simpson.

"... (the) descriptions of the orders and families, and (the) family keys... are uniformly excellent and well researched. Of particular use to the student is the tabulation of recognition characters... The technical illustrations of bones and skulls are... of uniformly high quality."

Bryan P. Glass, *Quarterly Review of Biology*

327 pages
7 1/2 x 9 1/2
\$12.95

43 A Field Guide to PACIFIC COAST FISHES
of North America (in the Peterson Field Guide Series)
by William N. Eschmeyer and Earl S. Herald, illustrated by Howard Hamann

Finally a long-awaited comprehensive guide to the marine fishes of the Pacific Coast. 600 species are treated, including all living in water shallower than 200 meters, plus many deep-sea fishes. 498 species are illustrated in 48 plates, of which 22 are in color. The guide covers the area from the Gulf of Alaska to Baja California.

The species accounts include identifying features, with key features highlighted in boxes, range habitat, comparison with similar species, and notes on natural history. As in other Peterson Field Guides, identifying features are indicated by arrows on the plates. Also includes introductory material, glossary, selected references, index.

The book is intended for laymen—fishermen, divers, nature lovers—as well as professionals, and is designed for use in the field.

494x7, soft cover
Houghton Mifflin Co., Boston, 1983
\$11.95

44 A Naturalist's SEASHORE GUIDE
by Gary J. Brusca and Richard C. Brusca

A guidebook to the common animals and plants found along the Pacific seashore. Emphasizes northern California, but useful from Point Conception to British Columbia. Includes chapters on seashore habitats, ecology, keys to major groups of intertidal invertebrates and to common species, glossary, and selected references. Extensively illustrated with beautiful line drawings.

Written for the interested layman as well as students of marine biology. Attractive and useful book for courses in natural history of the seashore.

205 pages, 5 1/2 x 8 1/2
\$8.95

45 Introduction to FRESHWATER ALGAE
by Allan Penleost

At last a book which bridges the gap between the small handbook and the technical work on identification. It contains keys and drawings of nearly 500 species of algae, selected to include a wide range of the most common species in the British Isles. Since most freshwater algae are cosmopolitan, this book will also be very useful in North America.

Included are chapters on equipment, methods of examination, keys to classes, accounts of the classes, bibliography, glossary, and index. Also included is an interesting and helpful section on where to look.

The book is written for students of botany, microbiology, and environmental studies, as well as researchers and hydrobiologists. We hope that it will also stimulate the amateur naturalist and microscopist to study this very interesting, usually neglected, and often surprisingly beautiful group of organisms.

ca. 256 pages, ca. 5 1/2 x 8 1/2, soft cover, Richmond Publishing Co., Ltd. 1984, \$22.95

46 DIATOMS of North America to Baja California
by William C. Vinyard

A key to the genera of diatoms of fresh, brackish, and marine waters of temperate North America. Includes a description of each genus, as well as a chapter on the biology of diatoms, collection techniques, Greek and Latin derivations of generic names, glossary, and references. Illustrated.

A valuable source book for use by environmental biologists and others interested in aquatic biology.

119 pages
5 1/2 x 8 1/2
\$9.95

ORDER FORM

No. 14

Quantity	TOTAL NUMBER OF ITEMS ORDERED			Quantity	TOTAL NUMBER OF ITEMS ORDERED		
	1-3	4-8	9 or more		1-3	4-8	9 or more
1. Swiss alps	59.50	50.55	41.65	24. Living with Pita	13.95	11.85	9.95
2. Mush. I	4.95	4.20	3.45	25. Bromeliads (Benz)	14.95	12.70	10.45
3. Mush. II	3.95	3.35	2.75	26. Bromeliads (Benz)	14.95	12.70	10.45
4. Mush. III	8.95	7.60	6.25	27. Butterflies	14.95	12.70	10.45
5. Mush. IV	5.95	5.05	4.15	28. Lichens (Duncan)	24.95	21.55	18.35
6. Mush. V	8.95	8.00	6.75	29. Wild Food	14.95	12.70	10.45
7. Mush. VI	8.95	8.45	6.25	30. Jarr. Nat. Ser.	3.95	3.45	2.95
8. Mush. Color	8.95	8.00	6.75	31. Lichens (Dobson)	25.25	21.80	18.40
9. America Calif.	6.95	5.90	4.85	32. Lichens (Duncan)	24.95	21.55	18.35
10. Binder	8.95	7.85	6.65	33. Lichens (Smith)	38.95	33.55	28.15
11. Mush. Cultivator	19.95	16.95	13.95	34. Lichen. Brit.	65.95	57.75	38.50
12. Mush. Cultivator	4.00	3.90	3.75	35. Nov. Plant. Gen.	89.25	74.25	56.25
13. British Mush.	14.95	12.70	10.45	36. Licheno-graphia	104.95	83.95	62.95
14. Agarics and Bolet.	33.95	27.15	20.95	37. Synopsis	89.95	71.95	53.95
15. 700 Pize	39.65	34.35	29.95	38. Spec. Lich. Univ.	86.95	53.75	42.50
16. Folklore	12.85	11.05	9.25	39. Plant. Crypt. Brit.	87.25	55.05	41.25
17. Pil. Growth Subs.	14.95	12.70	10.45	40. Outer Shores I	8.95	7.60	6.25
18. Bulb. Book	14.75	12.70	10.45	41. Outer Shores II	9.95	8.45	7.25
19. Brit. Wild Firs	14.95	12.70	10.45	42. Mammals	125.00	110.00	90.00
20. Vasc. Pil. Ferns	10.95	9.30	7.35	43. Fishes	11.95	9.95	8.35
21. Pils. NW Calif.	8.95	7.60	6.25	44. Seashore Guide	8.95	7.60	6.25
22. Grasses of U.S.	8.95	7.60	6.25	45. Freshwater Algae	22.95	20.65	10.35
23. Grasses, Ferns	14.95	12.70	10.45	46. Diatoms	8.55	7.60	6.25

(new book) Mush. In Garden 9.95
(prepub.) Amantia of N.A. 19.95
(subscription) Agracaria of Calif. 11.95

Prices do not include shipping. Payment MUST include 75¢ book for shipping (up to a maximum of \$6.75).

Prices effective until next brochure.

plus 6% (Calif. residents)
plus shipping

GRAND TOTAL

Name _____
Address _____
city, state, zip code _____
AMOUNT ENCLOSED _____

Anatomical information on *Placida* sp. = *Hermaea dendritica* of Baba, 1937 and 1955, from Japan.

Kikutaro Baba, Shigigaoka 35, Minami-II-jyo, Sango-cho, Ikoma-gun, Nara-ken, Japan 636

Placida sp. cf. *P. dendritica* (Alder & Hancock, 1843; *Calliopaea*); Midori-amamo-umiushi (Japanese name)
Pls. I-II; Text-fig. 1.

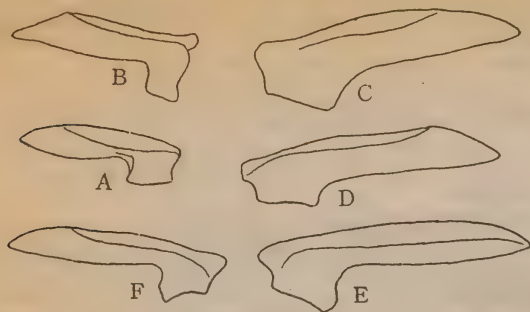
Placida babai Marcus, 1982: 25, f. 32 (n.n. for *Hermaea dendritica* of Baba, 1955).

Hermaea dendritica. Baba, 1937: 223-224, pl. 4, f. 8, tf. 9. - Tomioka, Amakusa; Baba & Hamatani, 1952: 89, f. 3, pl. 7, f. 3-7. - Sugashima, Shima (spawn); Baba, 1955: 10-11, 41, pl. 3, f. 9, tf. 9. - Sagami Bay. See also Marcus, 1982: 25, comment on *Hermaea* (*Placida*) *dendritica* of Thompson, 1973: 243-244 from Australia; Burn, 1966: 105, comment on *H. dendritica* of Baba, 1955: 10-11, 41 from Sagami Bay, Japan; Gascoigne, 1976a: 160, f. 4, anatomy of *H. dendritica* from Australia; Gascoigne, 1976b: 537-539, anatomy of *H. dendritica* from England.

Material:

Sp. No. A. Kasajima near Tamano, the Inland Sea of Seto, IV-2901957, 7mm (dorsal view).
Sp. No. B. Tannowa, Osaka Bay, VI-6-1962, 6mm (ventral view and a branchial papilla in fresh).
Sp. No. C. Tannowa, II-18-1961 (anatomy of the vessel system, radula and nerve center).
Sp. Nos. 1-3 (H.S.). Tannowa, VI-6-1962, 4-5mm.
Sp. No. 4 (L.S.). Tannowa, VI-6-1962, 5mm.
Sp. Nos. 7-8 (T.S.). Tannowa, VI-6-1962.
The animals were usually found living *Codium*.

The ground color of body yellowish-green, the grass-green liver system and its tributaries show through the integument of the branchial papillae, dorsum, head and rhinophores. Additional opaque white dots occur on the rhinophores, branchial papillae and tail. Sole colorless. The general grass-green tint of the body may slightly vary according to specimens.



Text-fig. 1. Radular teeth in *Placida*. A-C. *P. dendritica*; D-F. *P. sp. A*. A. From Thompson, 1976, f. 98d; B. from Gascoigne, 1976b, f. 1C; C. from Schmekel & Portmann, 1982, Taf. 29, f. 6; D. from Baba, 1937, tf. 9 (Tomioka, Amakusa, II-1935); E. from Baba, 1955, tf. 9B (Kasajima, Sagami Bay, IV-25-1951); F. this paper (Tannowa, Osaka Bay, II-18-1961).

The radular formula 9+30x0.1.0; the teeth blade-like rather than chisel-shaped. The visceral loop consisting of a supra-intestinal ganglion and a visceral (= abdominal) ganglion, see Gascoigne, 1980: 28, f. 8E; 1985: 12 and 16.

Genital system nearly as in *Ercolania boodleae* (Baba, 1938; *Stiliger*); see Baba & Hamatani, 1970: 218-219, pl. 7, f. 1-7; see also Schmekel & Portmann, 1982: 302-304, Abb. 7. 100b and Taf. 36-10 for *Placida dendritica* (Alder & Hancock, 1843; *Calliopaea*; Sanders-Esser, 1984: 205, Abb. 13a for *P. dendritica*). The vagina is closed in order to receive foreign sperm hypodermically.

The membrane gland (= capsule gland, see Gascoigne, 1980, f. 7B; 1985: 20, f. 9B) is in the center of the fertilization region. It is laden with sperm conducted at the proximal end (x) from the vaginal vestibulum (= vagina + spermatocyst). The fertilized and encapsulated eggs presumably pass forward at the distal end (y) into the mucous gland. Also, the membrane gland is associated with a number of different structures. The branches of the albumen gland are contained in the branchial papillae.

The prostate gland of the vas deferens is single, not divided into 4 parts as in *Placida dendritica* from the Mediterranean Sea (cf. Schmekel & Portmann, 1982: 303, Abb. 13a). Penis with a short stylet as usual in *Placida* (and the *STILIGERIDAE*, see Gascoigne, 1985: 13 and 19).

The Japanese specimens of *Placida* most closely resemble the English *P. dendritica* in the external form and coloration of the body (see especially Thompson, 1976: 174-176, pl. 8) to which they were formerly referred. However, Marcus, 1982:25 considered that our specimens differed from the European (English) species, *Placida dendritica*, by reason of having a different shape of the radular teeth (that is, these are not so apparently chisel-shaped as in the latter species, see Thompson, 1976, f. 98d; Gascoigne, 1976b, f. 1C; and Schmekel & Portmann, 1982, Taf. 29, f. 6).

Our specimens differ also from the Mediterranean *dendritica* in the simple formation of the prostate gland as mentioned above. More discussion seems necessary for identifying our specimens exactly with *Placida dendritica*, the type locality of which occurs in Torbay, England.

(P.S.) Lately, Dr. Eveline Marcus, Brazil, doubted the validity of *Placida babai* owing to the variability of the radular teeth in the European and Mediterranean *dendritica* in literature (personal communication).

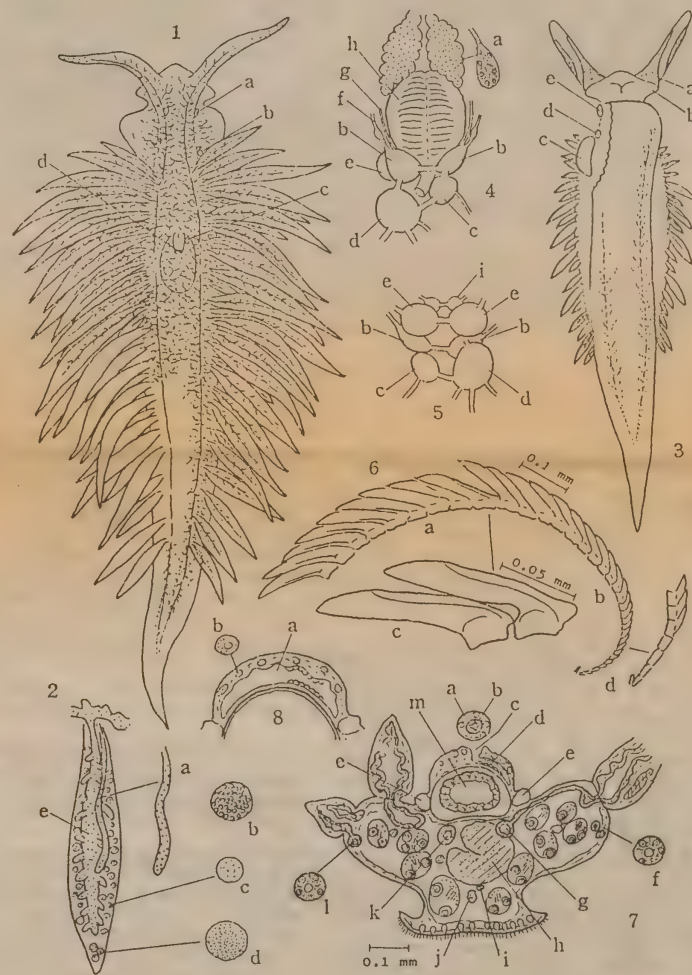


Plate I. *Placida* sp. cf. *P. dendritica* (Alder & Hancock, 1843).

Fig. 1. Live animal from above, 7mm (Sp. No. A). a. penial orifice, b. oviducal orifice, c. pore of melanin black vesicle, d. anus.

Fig. 2. A branchial papilla (Sp. No. B). a. albumen gland, b. liver cell with yellowish green granules, c. mucous gland cell, d. opaque white cell, e. liver diverticulum.

Fig. 3. Live animal from below, 6mm (Sp. No. B). a. rhinophoral lobe, b. oral lobe, c. vaginal ridge, d. oviducal orifice, e. penial orifice.

Fig. 4-5. Central nervous system from above and below (Sp. No. C). a. oral (= buccal) gland, b. cerebral ganglion, c. supra-intestinal ganglion, d. visceral (= abdominal) ganglion, e. pedal ganglion, f. rhinophoral nerve, g. optic nerve, h. pharynx, i. buccal ganglion.

Fig. 6. A radular ribbon from the right side. a. ascending series, b. descending series, c. teeth in row, d. teeth in the ascus.

Fig. 7. Transverse section of the body passing through the nephroproct (c). a. anal papilla, b. rectum, d. kidney, e. sinus, f. right main duct of the albumen gland, g. main canal of the right liver, h. mucous gland, i. hermaphrodite duct, j. salivary gland, k. main canal of the left liver, l. left main duct of the albumen gland, m. ventricle.

Fig. 8. Transverse section of the pericardial prominence. a. kidney, b. liver tributaries in the ingegument.

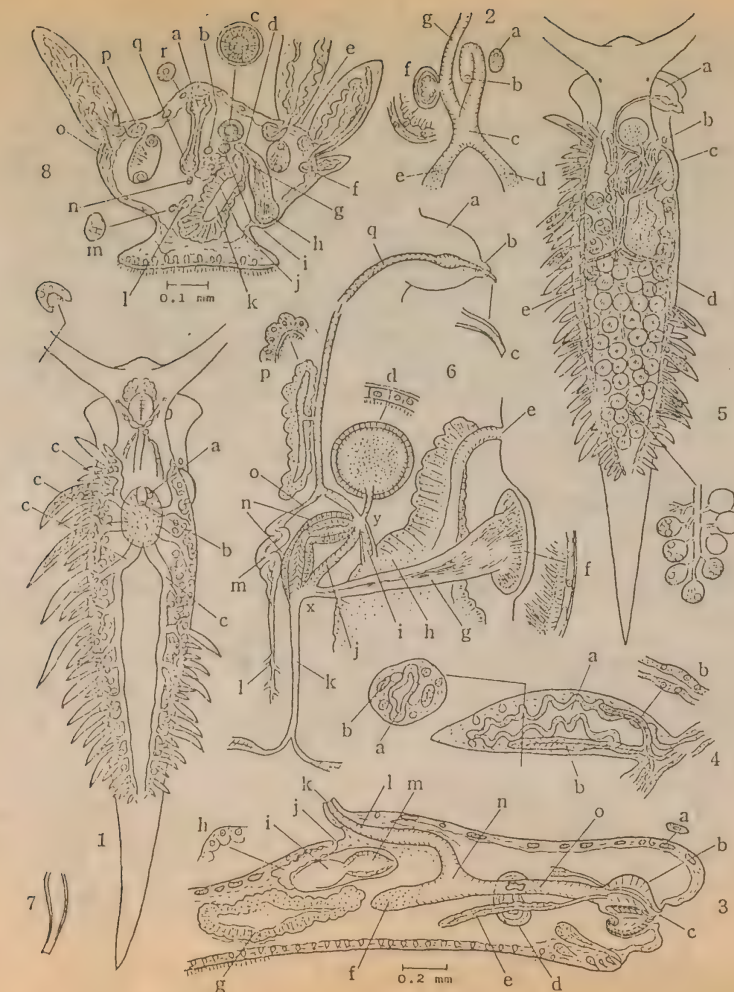


Plate II. *Placida* sp. cf. *P. dendritica* (Alder & Hancock, 1843).

Fig. 1. Dorsal vessel system (Sp. No. C). a. melanin black vesicle, b. anus, c. vessels (= veins).

Fig. 2. Part of the digestive system from above (Sp. No. 3). a. melanin black vesicle, b. rectum, c. stomach, d. right liver, e. left liver, f. oesophageal diverticulum, g. oesophagus.

Fig. 3. Median longitudinal section of the body (Sp. No. 4). a. liver diverticulum, b. pharynx, c. mouth, d. oesophageal diverticulum, e. salivary gland, f. right liver, g. mucous gland, h. kidney, i. auricle, j. nephroproct, k. anus, l. rectum, m. ventricle, n. stomach, o. oesophagus.

Fig. 4. Longitudinal section of a branchial papilla (Sp. No. 4). a. liver diverticulum, b. branches of the albumen gland.

Fig. 5. Genital system, diagrammatic (Sp. Nos. 1-3). a. produced penis, b. oviducal orifice, c. vaginal ridge, d. right main duct of the albumen gland, e. left main duct of the albumen gland.

Fig. 6. Main part of the genital system from above, reconstructed (Sp. Nos. 1-3). a. everted penial sac, b. penis proper, c. stylet, d. spermatheca, e. oviducal orifice, f. vaginal duct, h. mucous gland, i. connection between the membrane gland and mucous gland, j. loop, k. common duct of the albumen gland, l. hermaphrodite duct (1), m. ampulla, n. membrane gland, o. hermaphrodite duct (2), p. prostate gland, q. vas deferens.

Fig. 7. Penial stylet (Sp. No. 2).

Fig. 8. Transverse section of body passing through the vaginal ridge (Sp. No. 8). a. base of the anal papilla, b. hermaphrodite duct (2), c. membrane gland at the point x, d. vaginal duct, e. main canal of the right liver, f. right main duct of the albumen gland, g. connection between the membrane gland and the mucous gland, h. vaginal vestibulum, i. loop, j. prostate, k. mucous gland, l. ampulla, m. left salivary gland, n. right salivary gland, o. left main duct of the albumen gland, p. main canal of the left liver, q. stomach, r. liver tributaries.

REFERENCES

- Baba, K. 1937. Opisthobranchia of Japan. I. J. Dept. Agric. Kyushu Imp. Univ. 5(4):195-236, pl. 4.
- Baba, K. 1955. Opisthobranchia of Sagami Bay Supplement, collected by his Majesty the Emperor of Japan. Iwanami-Shoten, Tokyo 3 + 59p., 20 pls.
- Baba, K. & I. Hamatani 1952. Observations on the spawning habits of some of the Japanese Opisthobranchia. Publ. Seto Mar. Biol. Lab. 2(2):87-90, pl. 7.
- Baba, K. & I. Hamatani 1970. The anatomy of *Ercolania boodleae* (Baba, 1938) from Seto, Kii, Middle Japan (Opisthobranchia: Sacoglossa). Publ. Seto Mar. Biol. Lab. 18(4):215-222, pls. 5-7.
- Burn, R. 1966. Some opisthobranchs from southern Queensland. J. malac. Soc. Austral. 1(9):96-109.
- Gascoigne, T. 1976a. The reproductive systems and classification of the Stilligeridae (Opisthobranchia: Sacoglossa). J. malac. Soc. Austral. 3(3-4):157-172.
- Gascoigne, T. 1976b. Sacoglossan notes 3. Conch. Soc. Great Britain Newsletter:537-539.
- Gascoigne, T. 1980. Fine dissection of ascoglossans: 1-31.
- Gascoigne, T. 1985. A provisional classification of families of the Order Ascoglossa (Gastropoda: Nudibranchia). J. moll. Stud. 51(1):8-22.
- Marcus, Eveline 1982. Systematics of the genera of the Order Ascoglossa (Gastropoda). J. moll. Stud., Suppl. 10:1-31.
- Sanders-Esser, B. 1984. Vergleichende Untersuchungen zur Anatomie und Histologie der vorderen Genitalorgane der Ascoglossa (Gastropoda, Euthyneura). Zool. Jb. Anat. 111:195-243.

Schmekel, L. & A. Portmann 1982. Opisthobranchia des Mittelmeeres. Nudibranchia und Sacoglossa. Springer-Verlag, Berlin, 410p., 36 pls.

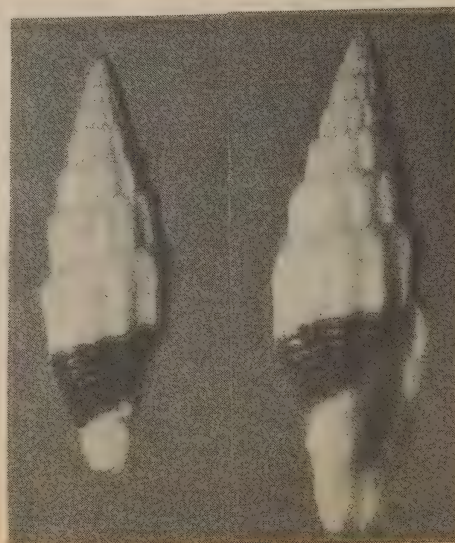
Thompson, T.E. 1973. Sacoglossan gastropod molluscs from Eastern Australia. Proc. malac. Soc. London 40(4):239-251.

Thompson, T.E. 1976. Biology of opisthobranch molluscs. Vol. 1:206p., 21 pls.

Terminology: loop = small oviduct; membrane (= capsule) gland; mucous gland = large oviduct; oesophageal diverticulum (= pouch); vaginal ridge = copulation pad.

ON THE REEF WITH BOB PURTYMUN: *Terebra* & *Vexillum*

Bob Purtymun, P.O. Box 643, West Point, CA 95255



Vexillum militaris (Reeve, 1845), 23mm, Grubb Reef, Great Barrier Reef, Australia. Photos by Bob Purtymun.

Current is always a concern of the diver-collector. It can be like the Molokai Express, the current that flows generally south-westward between Molokai and Oahu. This current varies with wind and tidal conditions. Sometimes running at speeds too fast to swim against, again it can be flat, and on rare occasions it will reverse itself. If you are caught down stream of the boat when this current starts to run, take heart in the fact that Hawaii has an excellent helicopter rescue service.

My query to our skipper around our next dive site, Grubb Reef (Great Barrier Reef, December, 1983), was nonchalantly answered with, "oh, just a gentle northward drift, nothing to worry about." Later, near the bottom about 75 feet deep I found this to be true.

On the northern side of the large coral heads that were scattered over the sandy bottom I found long comet-like tails of fine silty sand. This condition occurs when the current always flows in one direction. Often, I have found that some mollusks prefer this habitat to the coarser sand of the open bottom.

I picked a big comet-tail behind a 10-foot diameter coral "bommie" and started to systematically fan the sand to a depth of 2 to 3 inches, planning to cover the whole "tail". Two *Terebra affinis* Gray, 1834, a small *T. crenulata* (Linnaeus, 1758), and a *Vexillum exasperatum* (Gmelin, 1791) were found.

Later while still fanning away, out rolled a sight for sore eyes -- a *Vexillum militaris* (Reeve, 1845). This species is not large for VEXILLIDAE but few are as spectacular. The shell is pure white with a dark red band on the body whorl. My find was 23 mm long. It may be a range extension, as I cannot find any record of this shell being collected on the Great Barrier Reef.

SHELLS and SEA LIFE accepts advertising in good faith, assuming that advertisers will deal fairly with their customers. Inclusion of advertising in SHELLS and SEA LIFE, however, is not intended to imply endorsement to the advertiser. If in doubt, investigate first.



Front Row (left to right): Edna Naranjo, Richard Reeder, Walter B. Miller, David K. Mulliner, Bert C. Draper, Twila Bratcher, Richard Squires, Lou Ella Saul, Richard B. Saul, Walter E. Carr, Tom Burch, Bill Pitt, Sandy Gardner

2nd Row: Paul Scott, Betty Sue Miller, Tris Harman, Carol Skoglund, Jack W. Brookshire, Carole M. Hertz, Jules Hertz, Ronald G. Velarde, Don Shasky, Kathy McMorran, Charlotte Norrid, Hal Norrid, Rose Burch, Floyd Gardner, Bev Hansen

3rd Row: Jody Woolsey, Hans Bertsch, Sandra Millen, Roland Anderson, Matthew Joseph James, Timothy Allen Pearce, Terrence Milton Gosliner, Patrick Ives LaFollette, James H. McLean, Paul E. Skoglund, Kirstie Kaiser, Lois Pitt, Margaret Mulliner, Edith Abbott, Rosemary Adams, George Kennedy, Alan Hebert.

SHELLS and SEA LIFE

1701 Hyland St., Bayside, CA 95524

FREE CALENDAR WITH SUBSCRIPTION
WHILE THEY LAST!

Check one

☐ 12 months US Zip Code - \$24

☐ 12 months Foreign - \$30

☐ 12 months Air Mail - \$40

No other discounts or special offers with calendars

☐ \$5 discount without calendar

Phone No. () _____

NAME _____ DATE _____

(if using credit card, spell name exactly as on card)

STREET ADDRESS _____

CITY, STATE (COUNTRY), POST CODE _____

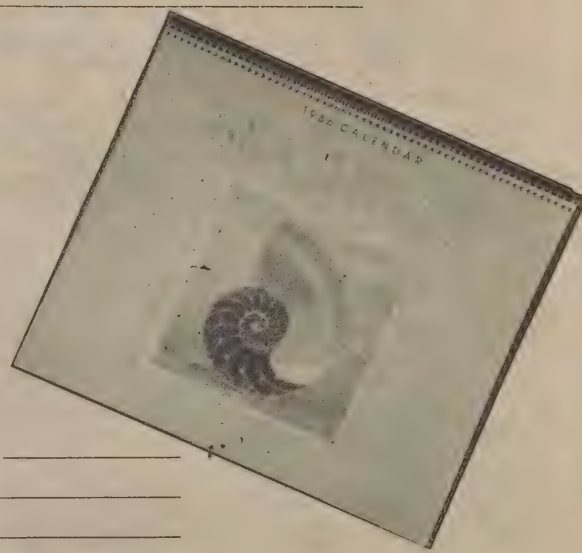
INTERESTS _____

Amount enclosed _____ or charge my MasterCard ☐ Visa ☐ No. _____

Signature _____ Expiration Date _____

You must return this form or a photocopy of this form with your order.

If you do NOT wish your name to appear in our directory, please check here ☐





#33. Sea anemone.



#49. ?Chocolate Chip sea star, Indo-Pacific.

?



#39. Sea anemones,



#44. ?Tube worm.

What is it?

Photos by E.R. Degginger
P.O. Box 186, Convent Station, NJ 07061



#18. Crab.



#28. ?Carpet Anemone, ?*Stoichæctus kenti*, Indo-

4224
0616
1011

SHELLS AND SEA LIFE

Vol. 18, No. 2

February, 1986

\$2.50

ISSN 0747-6078
1701 Hyland St.
Bayside, CA 95524 U.S.A.

ADDRESS CORRECTION REQUESTED

Resubscribe .512A3A6B2B9
Smithsonian Institution
Library - Acquisitions
10th St and Constitution Av NW
Washington, DC 20560

YOUR SUBSCRIPTION IS OUT NOW!
DON'T MISS THE NEXT ISSUE!

INSIDE !

Glass models,

Fossil Xenophora,

Shell Show Results,

Squid cookery

Volutes

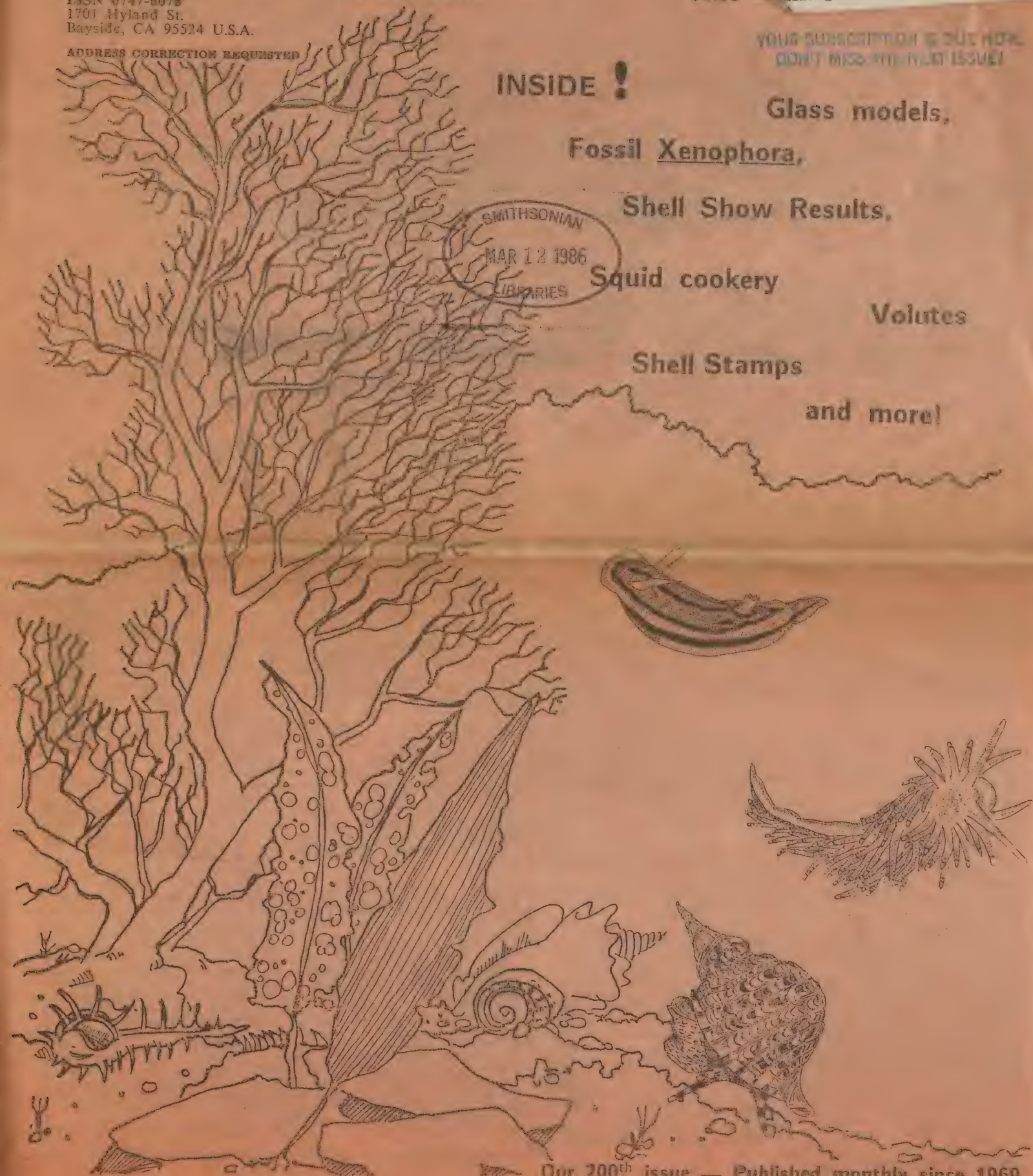
Shell Stamps

and more!

SMITHSONIAN

MAR 12 1986

LIBRARIES



Our 200th issue — Published monthly since 1969.

EDITOR'S NOTES

It is hard to believe that we have published 200 issues of *Shells and Sea Life* since the first 4-page newsletter in 1969. There are at least a couple of dozen of you out there who subscribed to that first issue in ditto format and many hundred who have joined us as we worked. Thanks to all of you! After several months struggle we are finally close to the publication schedule we have wanted all along. This issue will be mailed near the middle of February and coming issues should be mailed so that they are received by most of you near the first of each month.

We need an angel (or several angels) among you out there. We have been able to add a lot of new software and hardware to improve this publication during the past few years and have always done it on our own. Now we want to add one more piece of equipment which will cost \$5,000.00. Please consider donating to this need. We will be able to increase the size of the titles, add several more type styles, and more foreign language accent characters. We know the result will be worthwhile. I would be happy to trade typesetting for the money if someone has a book they want to publish.

For the first few years I could edit, type, print, fold, label, stamp and mail the entire issue in one long day and all by myself. With close to 5,000 copies going out each month things have changed. Simply sorting and printing out the mailing labels takes a couple of days along with day or two for preparing the foreign mail copies. I haven't counted how many countries receive *S&SL* lately but I know that several countries receive one or more postal BAGS of issues now.

We will print information in a timely manner. Notes and information on shows and meetings should reach us at least 60 days prior to the meeting to be included in *Shells and Sea Life*. If your club or organization is hosting a show or meeting please notify us at least 60 days in advance with an estimate of attendance. We will be pleased to provide you with quantities of *Shells and Sea Life* for distribution at your gathering.

INFORMATION is the primary service of *Shells and Sea Life*. We want you to know where you can find any information on mollusks and associated marine life. The current format of *S&SL* is the only possible way to provide all of the information you need. This format allows directories, articles, booklists, show calendars, personal notes, reader forum and our many other features to be included monthly.

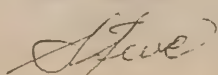
Every publication fills a need - or it eventually fails. Some club publications are simply meeting notices. Others include articles, and still others are complete technical journals. Technical journals often take 12 to 18 months to edit and print an article and cannot think of allocating space for novice questions and shell show notices. Club publications are regional interest at best and very limited in space for general interest or scientific articles. The printing and mailing costs are horrible and rising all the time.

Our format provides space for almost anything you can imagine needing. We will not print new species descriptions - they belong in a major scientific journal (e.g., *The Nautilus*, *The Veliger*, *Journal of Conchology*, *Zoological Journal of the Linnean Society*, etc.) We are appalled to see new taxa described in popular publications and especially in club publications. If the taxon cannot stand the scientific peer review process and justify publication in a pure scientific journal, it should not be named.

We seldom reprint from other publications; we would rather tell you where to find the information. Your local shell club is hard to beat for most of your needs. We want to make you aware of what is going on with other clubs and people around the world.

Our publication directory will give you information on content, cost and mailing address for all shell interest publications in the world. The list will be updated during the year as we get new information and listings. Thereafter, annually, we will do a complete directory in one issue. Other directories (Clubs, Dealers, Diving Tours, Shelling Tours, etc.) are planned. We are already listing most of the shell publications of the world through *Seashell Treasures Books* and will continue to make that list more complete as we can. If you have ideas for other directories, please write to me.

Best regards,



Seashell Treasures Books

MAILING LIST is now available for RENTAL!

Over 12,000 names and addresses are available for rent. These include shellers, shellclub members, shell dealers, bookstores, museums, publishers and others who are interested in shells and sea life. These are targeted consumers who buy natural history books and/or subscribe to natural history publications specializing in shells.

You may rent any part of parts of the list by specifying a state, city, a range of zip codes, or a range of alphabetical country names. There are almost 10,000 U.S. addresses and about 3,000 foreign addresses.

This list is continually updated with address corrections. The list's accuracy is warranted with a MONEY-BACK guarantee.

PRICES

First 100 @ \$.20 each (minimum 100)
101-1000 @ \$15.00 per hundred
1001-10M @ \$10.00 per hundred
10M-up @ \$5.00 per hundred

You can get 100 labels for \$20; 2500 labels for \$305; 12,500 labels for \$1,305

Addresses are supplied on pressure-sensitive labels, in zip code sequence, ideal for your pre-sorted mailings. Shipping will be billed at cost.

Send orders to: Mailing List, Seashell Treasures Books, 1701 Hyland St., Bayside, California 95524, U.S.A.

* * * * *

IN MEMORIAM

Donald P. Abbott
January 18, 1986
Hawaii

Editorial Staff

Managing Editor Steven J. Long
Assistant Editor Sally Long

Editorial Review Board

R. Tucker Abbott David W. Behrens
Hans Bertsch Kerry B. Clark
Walter O. Cernohorsky Malcolm Edmunds
Eugene V. Coan Terrence Gosliner
Michael T. Ghiselin James R. Lance
George L. Kennedy T.E. Thompson
William G. Lyons

Regular Contributors

Roland Anderson, David W. Behrens, Hans Bertsch, Donald Dan, Ed Degginer, David DeLucia, Wesley M. Farmer, Richard Goldberg, Susan J. Hewitt, David K. Mulliner, Stephanie Prince, Bob Purtymun, Thomas C. Rice, I.S. Roginskaya, Walter R. Sage, III, Donald R. Shasky, Emily H. Vokes

Patron

Eveline du Bois-Reymond Marcus

SHELLS and SEA LIFE was formerly known as the *OPISTHOBRANCH NEWSLETTER*.

The magazine is open to articles and notes on any aspect of malacology, fossils or related marine life. Technical articles submitted for publication are subject to editorial board review. Articles should be submitted typed and double-spaced. Authors receive 10 free reprints of their article. Additional reprints are available for purchase provided they are ordered prior to publication. For additional information send for free booklet "Suggestions for Preparing Manuscripts for *SHELLS and SEA LIFE*." We undertake no responsibility for unsolicited material sent for possible inclusion in the publication. No material submitted will be returned unless accompanied by return postage and packing.

SHELLS and SEA LIFE ISSN 0747-6078 is published monthly for \$24 per year by Steven J. Long & Sally Long, 1701 Hyland, Bayside, CA 95524. Second-Class Postage Paid at Bayside, CA. POSTMASTER: Send address changes to: *SHELLS and SEA LIFE*, 1701 Hyland, Bayside, CA 95524. Telephone (707) 822-1024. Outside U.S. postal ZIP code areas — \$30 surface or \$40 air mail. Full time students or senior citizens may deduct \$5 from the regular rates with proof of status. Clubs are eligible for special subscription rates — write for details. For multiple year subscriptions, deduct \$5 from the basic rate for the second year and \$10 from the basic rate for the third and additional years. Send change of address 6 weeks in advance. The publisher reserves the right to change subscription rates during the term of a subscription upon 30 days' notice. This notice may be by mail to the subscriber, by notice contained in the publication itself, or otherwise. Subscription rate changes may be implemented by changing duration of the subscription.

Monthly DISPLAY ADVERTISING is \$26 per column inch (2.3" wide), minimum \$33 per column inch (3.2" wide); \$47 per column inch (4.8" wide); \$600 per page, with discounts for larger ads & multiple insertions. Rates & discounts only apply to prepaid advertising. Multiple copies of individual issues — \$8 for 5 copies; \$10 for 10 copies; \$20 for 25 copies; \$35 for 50 copies; \$50 per 100 copies. These special rates are only available to dealers on standing order or to authors for additional reprints. Orders should be placed prior to publication month. Write or call for additional information or rate card.

© Copyright Steve & Sally Long 1985

Fossil Xenophora of Baja and Alta California

Kate St. Jean, Longview, Washington

CRETACEOUS GASTROPODS FROM MEXICO

1093



Xenophora willisi Webster, 1983 (From Jour. Paleontology 57(5))

The northwest coast of Baja California is desolate and rugged, with steep coastal slopes and numerous high cliffs eroding into the sea. Between these areas are arroyos and stretches of pebbly or sandy beaches. The origin of the landscape is primarily volcanic and ancient sea floor deposition.

Below one of the steep cliffs, a beautiful and unique specimen of *Xenophora* was found by Brad Riney of San Diego, California. This is significant because it represents only the third known fossil *Xenophora* species from the Baja California peninsula. Five species are known from "Alta" California. Mr. Riney's find prompted me to survey the fossil species of *Xenophora* reported from the three Californias.

Baja California Sur, Mexico

Xenophora sp. A
Beal (1948: 50) reported the first fossil *Xenophora* from Baja California peninsula. The specimen was collected from an Eocene or Paleocene formation north of San Ignacio Lagoon (Baja California Sur), and identified as *X. zitteli* Weaver, 1905. However, *X. zitteli* was named from Paleocene specimens collected in Contra Costa County, California. This unfigured and undescribed San Ignacio specimen needs further study before it can be assigned accurately to a species.

Baja California, Mexico

Xenophora willisi Webster, 1983

Melvin Webster, formerly a research associate of the Los Angeles County Museum of Natural History (LACM), collected specimens of a fossil *Xenophora*. His description of this species was published posthumously (Webster, 1983) with the following preface by Dr. Edward Wilson, Curator of Invertebrate Paleontology at LACM: "When Melvin L. Webster died he left a manuscript concerning the Upper Cretaceous gastropod fauna at Arroyo Santa Catarina. At the request of his widow, I extracted the accompanying paper from his manuscript, making minor additions for unification."

The fossil was found over 200 miles south of the U.S.-Mexican border, 5 miles inland from Santa Catarina landing, along the banks of an arroyo, in the Upper Cretaceous Rosario formation. The species was named *Xenophora willisi* in honor of Willis Parkinson Popenoe "in recognition of his contributions to the study of the Cretaceous of the west coast of North America."

The shell is large for the genus. Attaining a diameter as large as 110mm, it exceeds any other known Cretaceous *Xenophora*. Broadly conical, the shell has 5 to 7 low, flat-sided whorls. The shell surface is lamellose, with low axial folds curving convexly to the aperture. The base is broad and concave, and the umbilicus is completely closed. The ovate aperture is about 4 times wider than high, and is inclined at about 115° from the shell axis.

"*Xenophora willisi* is the most common large gastropod in the study area, but was collected only from beds on the west side of Arroyo Santa Catarina. Of the more than fifty specimens collected, most are fragments of natural casts, consisting of one to three whorls. The shell surface is poorly preserved and sculptural details have been lost Many shells are bored by unknown organisms and a few are encrusted with large serpulid (?) worm tubes. A small specimen of *Gyrodont* was the only possible accreted object noted on any of the shells, but the embayed whorl margins of the body whorl and deep cicatrices in the early whorls are suggestive of typical xenophorid agglutinating habits" (Webster, 1983: 1092).

Xenophora willisi is the first report of the genus in the Cretaceous of North America.

Xenophora sp. B

This *Xenophora* was collected by Brad Riney from a boulder beach 2 1/2 miles south of Salsipuedes, B.C., about 40 miles south of the international border. The beach is accessible by a very steep, dirt construction road. While he was opening a boulder from above the high tide line, it split open and numerous black pebbles fell out, revealing the *Xenophora*.

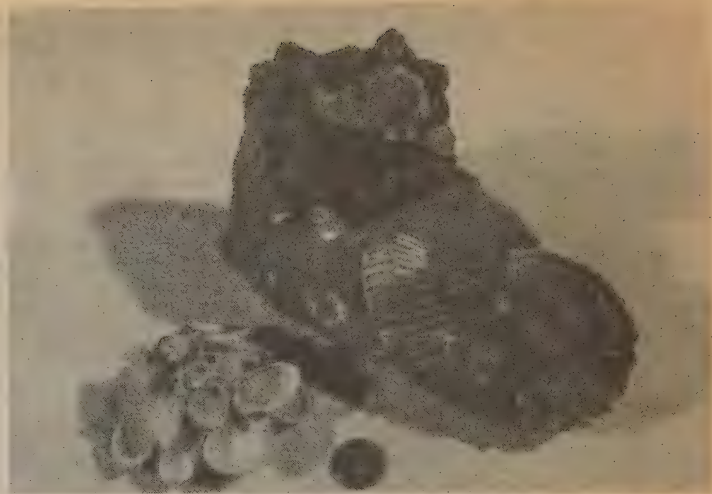


Xenophora sp. nov., Salsipuedes, Mexico, Photo by George St. Jean)

The matrix in which the fossil is implanted is composed of quartz and feldspar grains. The large pebbles are the only attachments. They are the same material as the matrix, and are black or dark gray with flecks of other materials. The attachments cover most of the shell, but an occasional space reveals a break in the calcareous material of the shell, showing granitic material filling the cavities. The shell measures 46mm in diameter and 44mm in height. This is the only known specimen from this location, but in a letter Mr. Riney stated, "If someone were to study the area in detail another *Xenophora* just might pop up." The shell is in the private collection of George Lee, Jr., of Costa Mesa, California.

In association with the *Xenophora* was found the uncoiled ammonite *Nostoceras sternbergi* Anderson & Hanna, 1935.

Shells and Sea Life, 18(2):4



Xenophora sp. nov., Salsipuedes, Mexico (Photo by George St. Jean)

California, U.S.A.

Xenophora zitteli Weaver, 1905

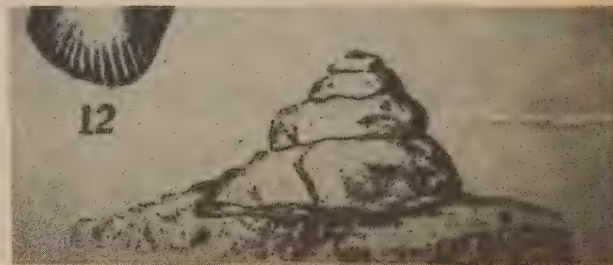
The original material consisted of 3 specimens. The largest has 7 flat whorls, a low spire, and a nearly flat base. The whorls are covered with extraneous objects which appear to be pebbles of quartz, ranging up to 13mm in diameter. The holotype is in the Museum of Paleontology, University of California, Berkeley. It measures 87mm in diameter and 57mm in height. The shells were collected southwest of Martinez, Contra Costa County, California, on the west side of the Del Hambre canyon road. The species was found in the lower beds of the Martinez formation, Eocene period.



Xenophora zitteli Weaver, 1905 (From U.C. Publ. Dept. Geol., Photo by George St. Jean)

Xenophora stocki Dickerson, 1916

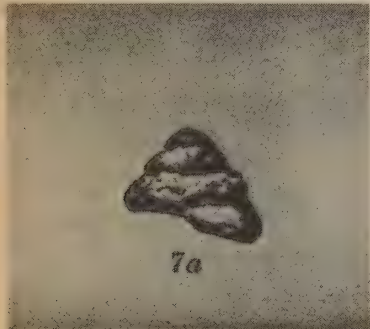
"Shell, low trochiform with six whorls; shell substance thin. Whorls are medially shouldered, with steep slope from a wavy, linear suture to the shoulder. The space between the shoulder and the next whorl is parallel to the axis of the shell. This space is further decorated by about seven roughened nodes whose apices are at the shoulder. The shell surface is pitted in several places. These round pits were once occupied by pebbles which the animal had agglutinated to its shell. Only the type specimen and a fragment are known" (Dickerson, 1916: 502-503). The specimens were collected in the Eocene Tejon formation, Rose Canyon, La Jolla (San Diego County), California.



Xenophora stocki Dickerson, 1916 (From U.C. Publ. Dept. Geol., Photo by George St. Jean)

Xenophora simiensis Nelson, 1925

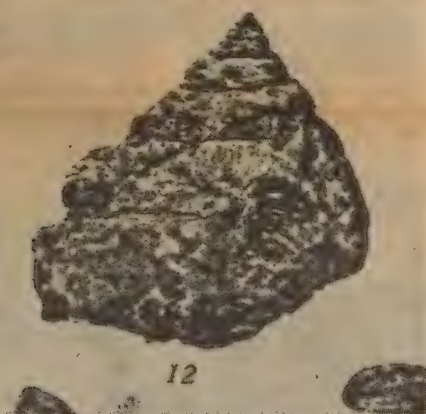
This is another rare fossil xenophorid. The known specimen was collected from the Eocene Martinez formation, near Santa Susana, Ventura County, California. "Shell small; number of whorls, 6; suture depressed. Whorls strongly convex near the base, slightly convex and sloping inward at a low angle above. Sides of whorls irregularly flattened giving spire a rude polygonal pyramidal appearance; flattening disappears on body whorl. Base of body whorl making a rather sharp angle with side, flattened at the margins, convex and sunken toward center. Surface of shell smooth except for fine growth lines. On side of body whorl these lines slope backward at a very low angle from the suture. Growth lines of base semicircular, parallel to the margins of aperture. Aperture broad, oval. Height of type specimen, 11mm; diameter at base of body whorl, 15mm; apical angle, about 78°" (Nelson, 1925: 422).



Xenophora simiensis Nelson, 1925 (From U.C. Publ. Dept. Geol., Photo by George St. Jean)

Xenophora hawleyi Loel & Carey, 1932

This species has been found in abundance in the western Santa Ynez mountains of Santa Barbara County and in Corral de Piedra Creek, San Luis Obispo County, California. It occurs in Lower Miocene deposits, near the base of the Vaqueros horizon. At the type locality (2.5 miles southwest of Buellton) it is in association with *Tivela inezana*, *Turritella inezana*, and *Olivella pedroana*.



Xenophora hawleyi Loel & Carey, 1932 (From U.C. Publ. Dept. Geol., Photo by George St. Jean)

The medium-sized shell is trochid and wider than high. There are eight low whorls, with the upper five moderately convex and ornamented by faint vertical costae. The last four whorls are very irregular because of the impression of small shells, pebbles, and other particles. The base is moderately concave, and is sculptured by many fine, uneven threads which are parallel to the lip. The holotype is 33mm high and about 40mm wide.

Xenophora sp. C ("*Xenophora* new species Vokes, 1939")

Small, probably immature specimens of a *Xenophora* were collected from the Eocene Domengine formation of Fresno and Kings County, California (north of Coalinga and south of Avenal). The portions of the shells found suggest that the animal attached shell fragments only. Dr. Harold Vokes wrote that "They differ from *X. stocki* Dickerson in lacking the median shoulder on the whorl, and there is no evidence of nodes ornamenting the shell" (Vokes, 1939: 167).

Discussion

How many species of fossil *Xenophora* have there been in the Californias? It may be fewer than mentioned in this article! A recent statement by Winston Ponder (1983: 22) suggests that speciation in *Xenophora* may not be as rapid nor as extensive as in other taxa: "Comparison of the shells of east and west coast [of Central America] specimens [of *X. conchyliophora*] does not reveal any significant differences. This is not particularly surprising as both populations were probably continuous as recently as late Pliocene because of the sea connection that existed up to that time. Insufficient time has elapsed to enable morphological differentiation to occur, as *X. conchyliophora*, like most species of *Xenophora*, is apparently very conservative. Woodring reduced [the eastern Pacific] *X. robusta* to subspecific status.

"*Xenophora conchyliophora* has been recorded as a fossil from several localities in the central American region and in the south-eastern United States, perhaps dating back as far as the Eocene. *Xenophora zitteli* Weaver from the Martinez Group, California (Upper Paleocene) is poorly described and figured but appears to have a general similarity with *X. conchyliophora* as has *X. stocki* Dickerson from Rose Canyon, California (Upper Eocene) and *X. hawleyi* Loel and Corey from the Vaqueros Formation, California (Lower Miocene)."

There is still much research needed to clearly understand the evolutionary relationships and history of fossil *Xenophora* from Baja and Alta California.

REFERENCES

- Beal, Carl H. 1948. Reconnaissance of the geology and oil possibilities of Baja California. Geol. Soc. Amer. Mem. 31:138p.
Dickerson, Roy E. 1916. Stratigraphy and fauna of the Tejon Eocene of California. Univ. Calif. Publ. Bull. Dept. Geol. 9(17):363-524.
Keen, A. Myra & Herdis Bentson 1944. Check list of California Tertiary marine Mollusca. Geol. Soc. Amer. Sp. Pap. No. 56:280p.
Loel, Wayne & W.H. Cory 1932. The Vaqueros formation, Lower Miocene of California. I. Paleontology. U.C. Publ. Bull. Dept. Geo. Sci. 22(3):31-410.
Nelson, Richard D. 1925. A contribution to the paleontology of the Martinez Eocene of California. U.C. Pub. Bull. Dep. Geo. Sci. 15(11):397-466.
Ponder, Winston. 1983. Xenophoridae of the world. Australian Mus. Mem. 17:126p.
Vokes, Harold E. 1939. Molluscan faunas of the Domengine and Arroyo Hondo formations of the California Eocene. Ann. N.Y. Acad. Sci. 38:246p.
Weaver, Charles E. 1905. Contribution to the paleontology of the Martinez group. U.C. Publ. Bull. Dept. Geol. 4(5):101-123.
Webster, Melvin K. 1983. New species of *Xenophora* and *Anchura* (Mollusca: Gastropoda) from the Cretaceous of Baja California Norte [sic], Mexico. Jour. Paleontology 57(5):1090-1097.

THOMAS HONKER

P.O. Box 1011 — 25 N.E. 10th Street
Delray Beach, Florida 33444
Phone: (305) 276-9658

Dealer in finest quality worldwide specimen shells for the discriminating collector. Caribbean specialist. Extensive stock both marine and land, uncommon to rare. Your want lists and inquiries invited. Send for Free Price List. HMS-ASGS

EDWARD T. SCHELLING

BUY SELL
TRADE



Worldwide Specimen Shells
Marine Freshwater Fossils
I.S.G.S. Standards
Personalized Service
Free Monthly Price List
Shelling with Schelling

P.O. Box 68

Shalimar, Florida 32579 U.S.A.

(904) 244-5646

**WORLDWIDE
SPECIMEN SHELLS**

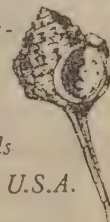
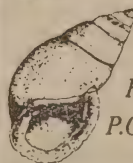
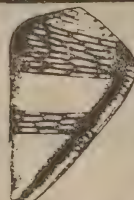
Your ONE STOP Marine & Land Shell Connection

Wide Variety of Select Quality Specimens -
"Knowledgeable & Courteous Service"

Write for Free Illustrated List

Richard Goldberg / Worldwide Specimen Shells

P.O. Box 137, Fresh Meadows, N.Y., 11365, U.S.A.



Milwaukee Public Museum Blaschka glass models, per Ward's "Catalogue..." of 1888

Joan P. Jass, Assistant Curator, Invertebrate Zoology Milwaukee Public Museum, Milwaukee, WI 53233

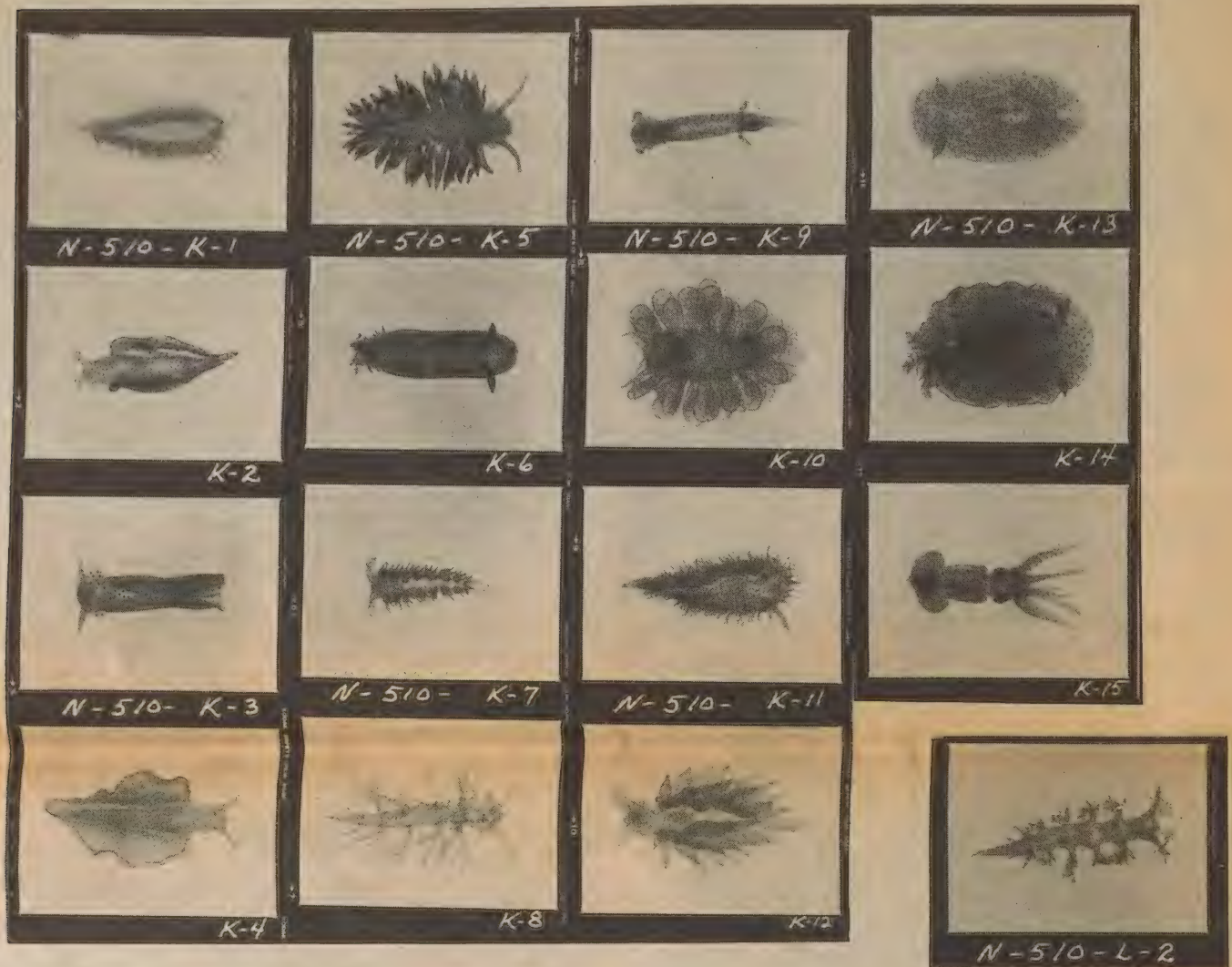


PHOTO CAPTIONS

N-510-K-1 *Coryphella salmonacea* (Ward's #391)
 N-510-K-2 *Pterogasteron nigropunctatus* (Ward's #477)
 N-510-K-3 *Placobranchus variegtus* (Ward's #470)
 N-510-K-4 *Elysia grandis* (Ward's #433)
 N-510-K-5 *Stiliger ornatus* (Ward's #481)
 N-510-K-6 *Montaguia picta* (Ward's #463)
 N-510-K-7 *Facelina coronata* (Ward's #441)
 N-510-K-8 *Embletonia pallida* (Ward's #436)
 N-510-K-9 *Caecinella luctuosa* (Ward's #377)
 N-510-K-10 *Cyerce elegans* (Ward's #393)
 N-510-K-11 *Janus sanguineus* (Ward's #456)
 N-510-K-12 *Actinodoris australis* (Ward's #361)
 N-510-K-13 *Doris pardalis* (Ward's #424)
 N-510-K-14 *Doris elliotii* (Ward's #413)
 N-510-K-15 *Loligo meneghini* (Ward's #562)
 N-510-J-1 *Loligo bianconii* (Ward's #561)

N-510-J-2 *Onychia platyptera* (Ward's #582)
 N-510-J-3 *Onychoteuthis krohnii* (Ward's #584)
 N-510-J-4 *Verania sicula* (Ward's #594)
 N-510-J-5 *Loligopsis zygaena* (Ward's #566)
 N-510-J-6 *Aeolis militaris* (Ward's #368)
 N-510-J-7 *Aeolis diversa* (Ward's #364)
 N-510-J-8 *Doriopsis clavulata* (Ward's #398)
 N-510-J-9 *Syllaea marmorata* (Ward's #478)
 N-510-J-10 *Melibe australis* (Ward's #461)
 N-510-J-11 *Doris concinna* (Ward's #409)
 N-510-J-12 *Chirodota purpurea* (Ward's #265)
 N-510-J-13 *Corallium rubrum* (Ward's #5)
 N-510-J-14 *Sepia bisserialis* (Ward's #591)
 N-510-J-15 *Rossia macrosoma* (Ward's #588)
 N-510-L-2 *Bornella digitata* (Ward's #375)
 N-510-L-3 *Flabellina newcombi* (Ward's #444)

The Milwaukee Public Museum owns glass models of seventy invertebrates which were created by Leopold Blaschka and his son Rudolph in the late 1800's. These were offered for sale in the United States through Ward's Natural Science Establishment, Inc., and it was from Ward's that the Museum acquired these models. The MPM Conservators have recently discussed cleaning and repair of the models with the staff who curate the Ware Collection of Glass Models of Plants, also created by the Blaschkas, at Harvard University. Unfortunately, the chemical nature of surface materials applied to the glass is unknown and seems to vary somewhat from piece to piece, so that no safe formula for cleaning the delicate models has been found. Therefore, it has been decided to forgo any refurbishing and simply display to the public a selection of those models presently in the best condition. The occasion for this temporary exhibit is the simultaneous showing of a Smithsonian Institution Traveling Exhibition "Unfamiliar Fauna of the Open Sea," a series of photographs of planktonic, pelagic animals taken by Jonathan Trent of the Scripps Institute of Oceanography and his colleagues. Since it was the glass-like nature of such members of the plankton which first inspired Leopold Blaschka, while on a sea voyage to America, to attempt the reproduction of these creatures (Kessler & Russell, 1978), the Museum has decided that it is appropriate to bring together these two most zoologically faithful means for capturing the morphological features of fragile marine invertebrates: the historically unique glass models of the Blaschkas and modern photography. Many of the species names as listed in Ward's catalog are no doubt now long out-of-date and I therefore hope to be aided in my attempts to write labels for our upcoming Blaschka exhibit by specialists who may be able to offer some information on current synonyms and life habits of these species.

REFERENCE

Kessler, C.G. & H.D. Russell 1978. Leopold and Rudolph Blaschka's Nudibranch Glass Models. *Nautilus*, 92(4):167-172.

Milwaukee Public Museum Blaschka glass models
per Ward's "Catalogue..." of 1888

TYPE -- COELENTERATA

Class - Anthozoa

Order - Alcyonaria

1. *Corallium rubrum* Lamarck

Order - Zoantharia - Actiniaria

2. *Anthea cereus* var. *alabastrina*, Gosse

3. *Sagartia ornata* Holdsworth

4. *Tealia gemma* Drayton

Class - Hydromedusae

Order - Hydroidea

5. *Clava squamata* (O.F. Mull.) Allman

6. *Heterocordyle bonybearei* Allman

7. *Obelia sphaerulina* Per. (medusa)

8. *Syncoryne frutescens* Allman

Order - Siphonophorae

9. *Diphyes sieboldii* Kolliker

10. *Halistemma rubrum* Vogt

11. *Rhizophysa eysenhardti* Gegenbr.

TYPE -- ECHINODERMATA

Class - Asteroidea

Order - Ophiuridea

12. *Ophiocoma nigra* O.F. Mull.

13. *Ophiomastix annulosa* Lam.

Class - Holothuriidea

14. *Chirodota purpurea* Lesson

15. *Holothuria immobilis* Semp.

16. *Sporadipus tremula* Gunn. (*Holothuria elegans*, M.)

17. *Synapta* (*Chirodota*) *lumbricoides* Esch.

TYPE -- VERMES

Class - Platyhelminthes

Order - Turbellaria - Rhabdocoel

18. *Typhloplana fulva* O.F. Muller

Order - Turbellaria - Dendrocoela

19. *Eurylepta auriculata* O.F.M.

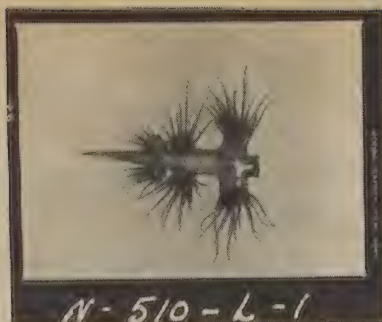
20. *Polycelis microsora* Schm.

21. *Proceros latissimus* Schm.

22. *Proceros viridis* Schm.

23. *Tetracelis marmorata* O.F.M.





N-510-L-1 *Glaucilla briareus* (Ward's #446)

TYPE -- MOLLUSCA

Class - Gasteropoda

Subclass - Opisthobranchia

Order - Elysiidae

- 24. *Elysia grandis* Bergh
- 25. *Placobranchus variegatus* Pease
- 26. *Pterogasteron nigropunctatus* Pease

Order - Aeolididae

- 27. *Aeolis diversa* Couthouy
- 28. *Aeolis militaris* Alder & Hancock
- 29. *Coryphella salmonacea* Couthouy
- 30. *Embletonia pallida* Ald. & Hanc.
- 31. *Facelina coronata* Forbes
- 32. *Flabellina newcombi* Angas
- 33. *Montaguia picta* A. & H.
- 34. *Stiliger ornatus* Ehrenberg

Order - Glaucidae

- 35. *Glaucilla briareus* Reinhardt

Order - Proctonotidae

- 36. *Janus sanguineus* Angas

Order - Nelibacidae & Tritonidae

- 38. *Bornella digitata* Ald. & Hanc.
- 39. *Caecinella luctuosa* Bergh
- 40. *Doto coronata* Alder & Hanc.
- 41. *Melibe australis* Angas
- 42. *Scyllaea marmorata* A. & H.

Order - Dorididae

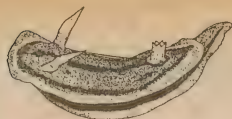
- 43. *Actinodoris australis* Angas
- 44. *Ceratostoma gracillimum* Semper
- 45. *Doriopsis clavulata* A. & H.
- 46. *Doriopsis tuberculosa* Quoy & Gaymard
- 47. *Doris concinna* Ald. & Hanc.
- 48. *Doris elliotii* Ald. & Hanc.
- 49. *Doris pardalis* Ald. & Hanc.

Class - Cephalopoda

- 50. *Enoplateuthis owenii* Verany
- 51. *Enoplateuthis veranii* Ruppell
- 52. *Histioteuthis bonelliana* Ferussac
- 53. *Loligo bianconii* Ver.
- 54. *Loligo meneghini* Ver.
- 55. *Loligopsis zygaena* Ver.
- 56. *Octopus macropus* Risso
- 57. *Octopus tetracirrhus* D. Ch.
- 58. *Octopus tuberculatus* Blainv.
- 59. *Octopus vulgaris* Lam.
- 60. *Ommastrephes acquipodus* Rupp.
- 61. *Ommastrephes sagittatus* Lam.
- 62. *Onychia platyptera* D'Orbigny
- 63. *Onychoteuthis krohnii* Verany
- 64. *Philonexis catenulatus* Fer.
- 65. *Rossia macrosoma* D. Ch.
- 66. *Sepia bisserialis* Montf.
- 67. *Sepioteuthis sicula* Rupp.
- 68. *Tremoctopus velifer* Fer.
- 69. *Tremoctopus violaceus* D. Ch.
- 70. *Verania sicula* Krohn.

Illustration:

biological, scientific,
ad and logo design



SCOOTER BEERS
15 W Hawthorne
Eureka, CA 95501

originals on request, color or pen

Characterizations from your favorite shell - send for quote



Antiquariaat Junk b.v.

Van Eeghenstraat 129
1071 GA AMSTERDAM
The Netherlands

NATURAL HISTORY BOOKSELLERS
SINCE 1899.

Now available, an outstanding list of RARE and VALUABLE early books on SHELLS.

Examples are:

- BORN- Testacea Musei Caesarei Vinodobonensis. Vienna 1780
- BROWN- Illustrations of the Conchology of Great Britain. London 1827
- BUONANNI- Recreatione dell'Occhio ... Rome 1681
- PERRY- Conchology. London 1811
- REEVE- Conchologia Iconica ... 185 parts. London 1843
- SOWERBY- Mineral Conchology
- ... and many other fine handcoloured illustrated works.

Please write to receive our special list.

National Marine
Education Association
1986 Annual Conference

"Those Magnificent
Sweetwater Seas"



August 4 - 9, 1986

John Carroll University
Cleveland, Ohio

For more information contact:

Ohio Sea Grant Education Program
The Ohio State University, 059 Ramseyer Hall
Columbus, Ohio 43201
(614) 422-1078



Successor to
M.E. Young
Richard E. Pett
and John Q. Burch

The Shell Cabinet

12991 Bristow Road, Nokesville
Virginia 22123 U.S.A.

Specimen Shells and Natural History Books

Send for Free List Today

READER FORUM



Phidiana crassicornis (Eschscholtz, 1831)
Animal & egg mass. Drawing by Scooter Beers

From I.S. Roginskaya: G.R. McDonald has recently (1983) summarized the wide-spread north Pacific distribution of *Phidiana crassicornis* (Eschscholtz, 1831) (formerly *Hermisenda crassicornis*). According to McDonald, *P. crassicornis* is reported along the Pacific coast of North America from Sitka (Alaska) up to Point Eugenia (lower California, Mexico), and from Japan (Baba, 1937, Niigata, Sea of Japan). The author doesn't mention the presence of this species in the seas of the Soviet Far East. However, in the most quoted works of Soviet malacologist Nina Volodchenko (Volodchenko, 1941) (provided with the detailed English summary), *Hermisenda crassicornis* was included in the general list (unfortunately not translated into English) of the Nudibranchs of the Far East of the U.S.S.R. Though we cannot consider this citation of full value, as in the list not only the references on the exact localities were omitted but also the indication of the concrete sea of the Far East were absent.

At the end of September, 1969, while conducting subtidal studies of the benthic Nudibranchia of the south Primorsk (Sea of Japan) I got at my disposal one living specimen of *P. crassicornis* collected by diving method in the Possjet Bay of the Sea of Japan (Troitsa Cove).

When fully extended the animal was 31.5mm, the long tapering tail (l=9.4mm) almost tentacular in appearance (serving the animal in captivity for grasping the twigs of *Ahnfeltia* [sp.?] and swinging on it, monkey-like). Anterior angles of the foot - produced into sharp tentacular lobes. Oral tentacles -- long (about 9.4mm), strong, tapering about twice as long as the perfoliate rhinophores (l=4.1mm), bearing some 13 transparent rings. The color pattern typical for the species (characteristic bluish, almost fluorescent parallel lines on the rhinophores, on the middle part of the back, on the tail, on the oral and propodial tentacles, on the flanks of the foot; the bright orange-red median stripe, beginning near the frontal margin of the head, narrowing between the rhinophores, expanding to the spindle-form area up to the beginning of the cerata of the first group, disappearing and once again reappearing on the back between the first and the second groups of papillae.) The bright orange cerata with brick-orange cores and opaque white tips, rather long (the longest equal to the length of the rhinophores, tapering, cylindro-conical, are in constant fast movement, especially when the overturned animal attempts to restore the normal position. The cerata arranged in 6 groups, were easily autotomized, and after preservation in 70% alcohol were completely detached from the body (in tufts). The white ovotestis was visible through the semitransparent integument. The dorsal anus was situated between the second and the third group (nearer to the third). The genital opening -- on the right side below the first group of dorsal papillae. Mandibles yellowish-brown, elongate-oval, concave (narrower than those figured by MacFarland, 1966, pl. 71, fig. 1). Masticatory

processes well developed, bearing about 52 denticles, each with 4-6 round tubercles on the inner face. The uniseriate radula with 24 rows of transparent yellowish teeth, with horseshoe shaped base, strong, long, rather blunt median cusp (serrulated on its inferior face) and 4 finger-like lateral denticles on each side of it.

The histological study of the ovotestis disclosed almost empty male follicles with a fringe of spermatids and spermatozoa at the wall of acini, and the female follicles filled with yolky ovocytes. No sperm dimorphism, similar to that of *Coryphella* (Roginskaya, 1963).

The animal lived in captivity for 10 days, crawling on the twigs of *Ahnfeltia* [sp.?] The form of the single egg mass, deposited September 30, 1969, on the wall of the the aquarium, was typical for the species (Hurst, 1967): the white cord, twisted in scalloped spiral coil, with closely packed white eggs. Not having seen, the data that permitted Volodchenko (1941) to make her allegation, I dare not speak about the range extension, but about the more precise definition of distribution of this amphipacific species, and all the same about the confirmation of her forgotten statements.



Phidiana crassicornis side view of 2 radular teeth (11th & 12th from the old end) along with masticatory process detail. Drawing by I.S. Roginskaya

Two pictures of the details of proc. mast. and two radular teeth are included to prove that my species is really *P. crassicornis*. -- Dr. I.S. Roginskaya, P.P. Shirshov Institute of Oceanology, Academy of Sciences of the U.S.S.R., 23, Krasikova St., Moscow, USSR 117218

From Dave Montgomery (Western Society of Naturalists): If you didn't go you missed a GOOD one! The 1985 meeting in Monterey was the largest (over 900 attendees), the best (quality of papers) and the smoothest (no projectors blew up) in the history of the current Secretary (1966-1986). Besides the Symposia and the Contributed Papers, the highlights were the AAH at the Monterey Bay Aquarium, the field trip to Elkhorn Slough and the memorable Presidential Dinner. Presentations of the marine facilities within California added to the excellence of the gathering...

The Outstanding Paper Awards: CATHERINE AGEIAN, University of Hawaii. The Biogeochemical Ecology of the Coralline alga *Porolithon gardneri* (Foselle). TED CRANFORD, University of California, Santa Cruz. Quantitative Morphology of the Dolphin Head. MATHEW GROBER, University of California, Los Angeles. Luminescence in *Ophiopsilla* risei: a Test of Possible Functions. STEVE NORTON, University of California, Santa Barbara. Factors Influencing Diet in a Sculpin Community. (This paper was awarded the Atlantic-Richfield Environmental Award for the best paper dealing with the environment.) STEVE RUMRILL, University of Alberta, Canada. Recruitment of *Pateria miniata*: A Post-factor Assessment of Larval Predation, Settlement and Post-larval Motility. MICHAEL RUSSELL, University of California, Berkeley. Gastropod Larval Ecology: To Feed or Not To Feed, That is Not the Question.

Our congratulations to these rising young scientists. We sincerely hope they continue in their graduate careers and the Society. Young scientists deemed worthy of HONORABLE MENTION in the Outstanding Awards are: KIRK APT, University of California, Santa Barbara. KENNETH CLIFTON, University of California, Santa Barbara. LEE W. COOPER, University of Alaska, Fairbanks. ANNETTE OLSON, Oregon

State University. JANET VOLTZOW, University of Washington. SALLY WALKER, University of California, Berkeley. DEENA DEUTSCH, Cuesta College and Cal Poly, San Luis Obispo. -- David H. Montgomery, Secretary, The Western Society of Naturalists, Department of Biological Sciences, California Polytechnic State University, San Luis Obispo, CA 93407.

From Vi Hertweck: The Sarasota Shell Club began in March, 1963 with a meeting at the Palmer Bank Building. Twenty-two people had responded to an ad placed in the Sarasota Herald Tribune. Jack and Helen Oberle had placed that ad to see if anyone was interested in organizing a shell club.

A month later on April 12, 1963, the first meeting was held at the home of Mrs. June Hamilton, 2918 Gulf of Mexico Drive, Longboat Key, Florida. At that time Jack Oberle was elected President; John Stone, Treasurer and Winifred Leonard, Secretary. Dues were \$1.00 and the meetings were held in the afternoon, in members' homes.

The first show was held the following year, in April at the Lido Beach Casino. Since the expense for that first endeavor was \$119.64, the dues were raised to \$2.00 to cover them. However, we realized a profit of \$199.71 and we were off to the start of something big. The shell of the show that year was a Golden Cowrie, *Cypraea aurantium* Gmelin, 1791.

Our presidents through the years have been: Jack Oberle, 1963-65; Louise Danforth, 1965-67; Bliss Rink, 1967-68; Jack Oberle, 1968-69; Thomas Robertson, 1969-1970; Evelyn Bradley, 1970-72; Jack Oberle, 1972-74; Charles Hertweck, 1974-80; Peggy Williams, 1980-82; Vi Hertweck, 1982-84; Dick Forbush, 1984-85 and June Bailey, 1985-86. The club was incorporated March 28, 1975, with the late Mr. Al. Avellant heading that committee.

When the late Jim Moore was dredging in the Gulf of Mexico in the early sixties, a rare and beautiful shell, *Murex beaulti* (Fischer & Bernorði, 1857) was receiving much attention. IT was adopted as our logo. One of our charter members, Ree Rathburn, designed it. However we have changed, still the *beaulti*, but a drawing by the late Neil Helper, of a beautiful webbed specimen.



We have one hundred seventy-six members, from all walks of life. World travelers to armchair collectors, consisting of beginning amateurs, advanced collectors and professionals.

Anyone interested in shell or shell art is welcome to attend our meetings and join our club. Meetings are held the 2nd Thursday of each month, September thru May, at 7:30 pm at the Mote Marine Science Center. Programs are varied to cover all interests.

We sponsor a shell show each year the 3rd week-end in February, at the Sarasota Exhibition Hall, which includes both artistic and scientific exhibits. Proceeds are donated to schools, libraries and museums. Since 1978 we have donated nearly fourteen thousand dollars. -- Mrs. Charles Hertweck, 637 Sheridan Drive, Venice, FL 33595.

The Editor Goofed - Again!

Santa Barbara Shell Show, 1985, Class K (Amateur, small exhibit), 1st Place, Jack Gilbody. "The Six Classes of the Phylum Mollusca" photo in the January issue did not acknowledge Jack Brookshire again for the photograph. You may recall that I forgot to acknowledge Jack's photos in the November issue.



From Miriam L. Cooke: Hope the photo of my shell will reproduce clearly enough for someone to be able to give me some information regarding age, origin and/or carvers.

Based on information available the number of figures and the delicate carving indicates it was possibly carved by cameo carvers about the mid 19th century. However, it was suggested that it might have been carved by an Israelite. Does someone have any information or knowledge regarding this?

It was purchased at a flea market from a man who said it was part of an estate that he had purchased. He further stated that it was carved by the "Cameo Carvers" but maybe that was just a selling point.

If any readers have any knowledge of the above or know where it is available please write. - Miriam L. Cooke, 13330 3rd N.E., Seattle, WA 98125

ERRATUM

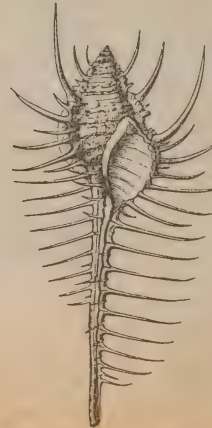
In the January issue, Page 3 (H.K. Mienis), the bottom portion of this section became separated from the remainder of the article. Our apologies to the author and our readers

Neritina spinosa Wood, 1828 — fig. 2.

This is actually the species figured by Boorman (1979). It is a junior synonym of the rather polymorphic *Clithon (Clithon) coronata* (Linnaeus, 1758).

This species is characterized by having a shell with an inflated last whorl. Its basic color is usually dull yellowish, greenish or sometimes violet, often with darker spiral bands and irregular triangular spots or zigzag lines. The shell is coarsely sculptured by axial wrinkles. Spines are usually present on the shoulder.

The type locality of Wood's *Neritina spinosa* is unknown. The species has a very large distribution from the Nicobar Islands in the west to Fiji in the east (van Benthem Jutting, 1956; Starmuehner, 1976).



CLASSIFIED ADS

Advertisers are solely responsible for their material. Rates: \$2.50 per line. Payment must accompany ad copy. 30 characters and spaces per line. Partial lines count as full lines. Display ads within this section \$17.50 per column inch. Current paid subscribers receive a 10% discount on their ads. No other discounts are available. All display copy must be camera-ready. We reserve the right to modify copy to fit paid lines or to refuse any ad.

SUBSCRIPTIONS

Subscribe to **SHELLS and SEA LIFE** and get a free four line classified ad. Send copy with full payment for 1 year subscription (no discounts). Additional lines \$2.50 each.

FOR SALE — RETAIL

SPECIMEN QUALITY ABALONE
Set of all eight California *Haliotis* - best possible lips - carefully cleaned - full data - \$80, postage extra. *H. corrugata*, *H. cracherodii*, *H. fulgens*, *H. soredensis*, *H. rufescens*, *H. walallensis*, *H. kamtschatkana*, *H. k. assimilis*. PO Box AC, Trinidad, CA 95570, USA. Wholesale shell price list (Mexico, Pacific Coast USA & worldwide) available to dealers.

FLORIDA LIGUUS; WORLD'S MOST BEAUTIFUL TREE SNAIL. Limited number superb shells from my personal collection. Free price list. Archie L. Jones, 8025 SW 62 Ct., Miami, Florida 33143 USA

WORLD WIDE SEA SHELLS for collectors. Free Price List. Sea Gems, 2002 Margaret Drive, Wichita Falls, TX 76306

WORLD'S LARGEST ASSORTMENT FOR MEDITERRANEAN SHELL BOOKS, SEA SHELLS, LAND SNAILS, EXTINGUISHED FOSSIL SHELLS. 60 page price list free on request. Write to: OSTINI MAURIZIO - C.P. 42 - 00055 LADISPOLI RM - ITALY

FREE PRICE LIST Worldwide specimen shells. Marine, land, freshwater and fossils. Steve Rosenthal, 207 Newton Road, Raleigh, NC 27609 (919) 846-0876

BOOKS FOR SALE

NATIONAL GEOGRAPHICS: Jul. 1949, (3) \$15/ea; Mar. 1955 (2) \$8; Jan. 1959 (3) \$5; Mar. 1969 (5) \$12 - Send check, including \$1.50 P&H to R. Westcott, 10 Cricket Ct., Old Saybrook, CT 06475

SEASHELL TREASURES BOOKS 1701 Hyland, Bayside, CA 95524. Postage & insurance additional.

CURRENT EVENTS

Schedule Shows & Conventions

1986

Sanibel Shell Fair March 6-9, Sanibel, Florida. Contact: Dorothy Putnam, Sanibel Community Center, P.O. Box 72, Sanibel, FL 33957, or call 813-472-2155

Marco Island Shell Show March 12-13, Marco Island, Florida. Contact: Vera Wooley, 930 Montego Court, Marco Island, FL 33937, or call 813-394-1098

National Science Teacher's Association National Convention, March 25-30, San Francisco, California. Contact: Marjorie Gardner, Program Chairman, San Francisco National Convention, National Sciences Teachers Association, 1742 Connecticut Ave. N.W., Washington, DC 20009, or call 202-328-5800

Palm Beach Shell Show April 3-6, West Palm Beach, Florida. Contact: Phyllis Diegel, 143 Alcazar St., Royal Palm Beach, FL 33411, or call 305-798-5351

Georgia Shell Show April 11-13, Atlanta, Georgia. Contact: Carl & Rene Beeler, 1868 Gainsborough Dr., Chamblee, GA 30341, or call 404-451-2221

St. Louis Shell Show April 18-20, St. Louis, Missouri. Contact: Alan Gettleman, 4045 Central Lane, Granite City, IL 62040, or call 618-931-1312

Southern California Academy of Sciences, May 2-3, California State University, San Bernardino, California. Contact: Program Chairman, Southern California Academy of Sciences, 900 Exposition Blvd., Los Angeles, CA 90007, or call 213-744-3384

2nd International Symposium on Indo-Pacific Marine Biology Guam, Truk & Ponape, Sponsored by the Western Society of Naturalists, June 22 - July 9. Contact: David H. Montgomery, WSN Secretary, Biological Sciences Dept., California State Polytechnic University, San Luis Obispo, CA 93407.

American Malacological Union Western Society of Malacologists Joint Meeting, July 2-7, Monterey, California. Contact: Paula Mikkelsen or Margaret S. Mulliner

Conchologists of America Convention July 15-19, Fort Lauderdale, Florida. We will provide more information as we get it.

National Marine Education Association, 1986 Annual Conference, August 4-9, John Carroll University, Cleveland, Ohio. Contact: Ohio Sea Grant Education Program, The Ohio State University, 059 Ramseyer Hall, Columbus, OH 43210, or call: 614-422-1078

North American Paleontological Convention August 12-15, Boulder, Colorado. Field trips are planned for Aug. 4-11 and Aug. 16-17, along with workshops and access to collections. Contact: Norman L. Gilinsky, Dept. of Geological Sciences, VPI and SU, Blacksburg, VA 24061

Unitas Malacologica Ninth International Malacological Congress, August 31-September 6, Edinburgh, Scotland. Contact: Congress Office, Royal Scottish Museum, Edinburgh, Scotland EH1 1JF

Western Society of Naturalists, December 27-30, University of Hawaii at Hilo. Dr. John Chan will be the local chairman.

1987

Western Society of Naturalists, December 27-30, California State University, Long Beach, California. Dr. Don Reish will be the local chairman.

* * * * *

SEASHELL TREASURES BOOKS

Shells and Sea Life Publications
1701 Hyland, Bayside CA 95524
M. Sally and Steven J. Long
(707) 822-1024

NEW BOOK LIST

#	Author	Title	Price			
0460	Abbott	Compendium, Seashells	\$ 50.00	0431	Heller	Designs, for Coloring \$ 4.00
0281	Abbott	Sea, Shells N Amer Rec	\$ 15.00	0327	Hinton	Shells, New Guinea & \$ 19.00
0288	Abbott	Seashells, World	\$ 3.00	7185	Hinton	Guide, to Australian \$ 15.00
0688	Abbott	Sea, Shells N Am. SB	\$ 8.00	7192	Hinton	Guide, Shells PNG \$ 15.00
0816	Abbott	Col Shells Carib dry	\$ 9.00	7295	Hinton	Sshore Life So Calif \$ 4.00
0816	Abbott	Col Shells Carib wet	\$ 5.00	0100	Howorth	Abalone, Book HB \$ 10.00
7200	Abbott	How, know Amer S. Sh	\$ 4.00	0100	Howorth	Abalone, Book SB \$ 5.00
7219	Abbott	Kingdom of Seashell	\$ 16.00	0216	Human	Invertebrates, Vol. VI \$ 75.00
0205	AMU	How to Study & Coll.	\$ 3.00	0147	Humann	Ocean, Realm Guide Re \$ 11.00
0394	Andrews	Texas Shells	\$ 10.00	0287	Humphre	Seashells, W Indies \$ 20.00
7444	Arakawa	Sh on Stamps World	\$ 20.00	0153	Iverson	How, to Cope w Danger \$ 4.00
0272	Arnold	Sea Beach, Ebb Tide	\$ 8.00	0292	Johnson	Sshore Anim. Pac Cst \$ 7.00
0111	Barr	Under Alaskan Seas	\$ 15.00	0480	Johnson	Living, Seashells \$ 9.00
0129	Bavenda	Beneath, Cold Waters	\$ 16.00	0962	Jones & B	Classification, Guide \$ 3.00
7441	Bennett	Great Barrier Reef.	\$ 45.00	0126	Kaplan	Field, Guide Coral Re \$ 19.00
3045	Bequaer	Mollusks, Arid S.W.	\$ 8.00	0197	Kay	Hawaiian, Marine Shel \$ 38.00
0199	Bergero	How, clean seashells	\$ 3.00	0233	Keen A	Marine, Molluscan Gen \$ 21.00
0351	Berrill	1001, Questions Seas	\$ 6.00	0290	Keen A	Seashells, Trop W Am \$ 48.00
0412	Bertsch	Hawaiian, Nudibranch	\$ 9.00	0961	Kellum &	Shellcraft bks set 5 \$ 8.00
0291	Bouchet	Seashells, of W Europ	\$ 7.00	0309	Kellum	Shellcraft, Critters \$ 3.00
0159	Braun & B	Explor PC Tidepls SB	\$ 5.00	0474	Kilburn	Seashells, S Africa \$ 62.00
0159	Braun & B	Explor PC Tidepls HB	\$ 11.00	0176	Kirklad	Fossils, in Colour HB \$ 10.00
0406	Brost	Gd Sh. Col Kwajalein	\$ 15.00	0286	Kirtisi	Seashells, Sri Lanka \$ 16.00
0135	Brusca	Com Intertide Invert	\$ 27.00	0109	Kopper	The Nat, Mus. N.H. \$ 65.00
0177	Brusca	A naturalists, seasho	\$ 10.00	0117	Kozloff	Seashore, Life North. \$ 20.00
0408	Burgess	Corals,	\$ 5.00	0214	Light	Intertidal, Invert. C \$ 35.00
0837	Byergo	Sea, Life Note Cards	\$ 5.00	0171	Lindner	Field, Guide to Seash \$ 12.00
0838	Byergo	Sea, Life Poster 25"	\$ 10.00	0167	Lippson	Life, in the Chesapea \$ 14.00
0841	Byergo	Tropical, Bird Poster	\$ 10.00	0316	Magnott	Shelling, & Beachcomb \$ 6.00
0411	Campbel	Sshore Seas, Europe	\$ 12.00	0127	Magrude	Seaweeds, of Hawaii \$ 10.00
0857	Carmich	Seashell, Calendar-86	\$ 7.95	0189	McDonal	Gd to Nudibr. of Ca \$ 15.00
0110	Case	Pictorial, Guide Foss	\$ 32.00	0240	McKay	Let's, go Shelling \$ 3.00
0207	Cassano	Illustrated, Guide Foss	\$ 8.00	0782	McLachl	Fldbk Pac NW Sea Cre \$ 10.00
0457	Clover	Latiaxis, Catalog SB	\$ 10.50	0289	Melvin	Seashells, World Val \$ 20.00
0843	Colin	Carib, Reef Inverteb.	\$ 30.00	0352	Melvin	Thousand, World Seash \$ 19.00
0165	Coulomb	Seaside, Naturalist	\$ 14.00	0845	Melvin	Nautilus, Card Game. \$ 6.00
0293	Crowder	S. shore life Bet Tide	\$ 8.00	0168	Morris	Field, Gde Shells Atl \$ 16.00
0204	Dahlem	How, to Smoke Seafood	\$ 3.00	0169	Morris	Field, Gde Shells Atl \$ 9.00
0137	Dance	Collectors, Encyclop.	\$ 25.00	0172	Morris	Field, Guide Shells P \$ 13.00
0366	Dance	World's, Shells	\$ 11.00	0271	Morris	Intertidal, Invertebr \$ 60.00
0836	DeLeiri	Shells, Coloring Book	\$ 3.00	0313	Murray	Shell, Life & Shell C \$ 8.00
0423	DeLuca	Pacific, Marine Life	\$ 3.00	0162	Notecar	Notecards 3 different \$ 3.00
0808	DeLucia	Guide, Mail Order Deal	\$ 5.00	0693	Notecar	Seashells, Carmichael \$ 1.00
0373	Dewees	The Printer's, Catch:	\$ 27.00	0190	Oliver	Guide, to Shells Worl \$ 12.00
0138	Eisenbu	Collect Gde SS world	\$ 25.00	0463	Passas	Shellcraft, - Derby L \$ 5.00
0166	Farley	Baja, Ca Divers Gd.	\$ 14.00	0311	Pelosi	Shellcraft, Instruct \$ 4.00
0402	Farmer	Sea-Slug, Gastropods	\$ 10.00	0308	Pope	Shellcraft, Animals \$ 3.00
0436	Fieldin	Hawaiian, Reefs and T	\$ 10.00	0163	Postcar	Postcards 8 each \$ 3.00
0348	Galbrai	Subtidal, Mar. Biolog	\$ 6.00	0391	Powell	NZ, Mollusca-Mar, Land \$ 64.00
0405	Gillett	Australian, Seashores	\$ 5.00	0249	Radwin &	Murex, Shells World H \$ 35.00
0449	GoldenB	Animals, of the SSh.	\$ 3.00	0430	Rehder	Field, Guide N. Amer. \$ 13.00
0161	Gosner	F. Gd Atlant. Shores	\$ 10.00	0450	Rhyne	Carolina, Seashells \$ 5.00
0182	Gotshal	Marine, Animals Baja	\$ 18.00	0130	Rice	Cat, Dealers Prices 8 \$ 10.00
0425	Gotshal	Pac. Cst. Mar. Invert	\$ 13.00	0315	Rice	Sheller's, Directory- \$ 4.00
0107	Greenbe	Radiant Reef, Carib.	\$ 4.00	0439	Richard	S. African Sh. SB \$ 11.00
0186	Greenbe	Guide, to Corals & Fish	\$ 5.00	7300	Rogers	Shell, Book \$ 15.00
0225	Greenbe	Living, Reef	\$ 8.00	0146	Romashk	Coral, Book SB \$ 4.00
0452	Greenbe	Sharks, Other Dangers	\$ 5.00	0223	Romashk	Living, Coral SB \$ 4.00
0106	Grzimek	Anim. L. Enc. 3 Mol. HB	\$ 58.00	0228	Romashk	Magic, of Seashells \$ 3.00
0844	Grzimek	Anim. L. Enc. 3 Mol. SB	\$ 35.00	0301	Romashk	Shell, Book \$ 4.00
0242	Hall	Shells Florida Coast	\$ 3.00	0211	Russell	Index, Nudibranchia \$ 20.00
0152	Halstea	Dangerous, Mar Anim.	\$ 16.00	0686	Sabelli	Guide, to Shells-Simo \$ 23.00
0203	Hardin	How, Preserve Animals	\$ 3.00	0686	Sabelli	Guide, to Shells-Simo \$ 10.00
0241	Harris	Dict. Seashore Life	\$ 4.00	0102	Scharp	About Sharks, \$ 4.00
0404	Healy & Y	Australian, Crustacea	\$ 8.00	0116	Seikman	Book, of Shells \$ 4.00
0140	Hedgpit	Common, Seashore Life	\$ 5.00	0196	Seikman	Handbook, of Shells \$ 3.00
				0246	Sexton	Shellcraft creations \$ 3.00
				0247	Sexton	Shellcraft necklaces \$ 3.00

0846	Smith	Common, Seashore Life	\$ 5.00
0847	Smith	Common, Seashore Life	\$ 5.00
0475	Smythe	Seashells, Arabian G	\$ 26.00
0128	Snively	Exploring, Seashore B	\$ 13.00
0158	Spitsbe	Seacoast, Life N Carol	\$ 7.00
0459	Stahly	Sand, Dollar	\$ 3.00
0482	Stahly	Shellcraft, Secrets	\$ 3.00
0695	Stix&Ab	Shell, The HB Delux	\$ 55.00
0818	Stix&Ab	Shell, Stix New HB	\$ 13.00
0124	Taylor	Sport, Diving Catalog	\$ 13.00
0263	Tinker	Pacific, Sea Shells	\$ 15.00
0421	Vessel&	Beach, Birds	\$ 3.00
0422	Vessel&	Tide, Fools	\$ 3.00
0173	Vilas	Florida, Marine Shell	\$ 18.00
0451	Voss	Seashore, Life Florid	\$ 10.00
0343	Wagner&	Stand Cat. Shells	\$ 65.00
0471	Wagner&	St. Cat. supp 2	\$ 21.00
0691	Wagner&	St. Cat. Coll sheets	\$ 4.00
0781	Wagner&	St. Cat. Supp 3 sz rec	\$ 7.00
0141	Walls	Conchs, Tibias & Harp	\$ 15.00
0144	Walls	Cones, HB	\$ 40.00
0149	Walls	Cowries, HB	\$ 25.00
0401	Walls	Shell, Collecting	\$ 5.00
0842	Walls	Encyclo, Marine Inve	\$ 50.00
0125	Warmke&	Caribbean, Seashells	\$ 7.00
0226	Weaver	Living, Volutes HB	\$ 45.00
7206	Webb	Handbook, for Shell C	\$ 12.00
0217	Westbro	Key, to Cleaning Shel	\$ 3.00
0109	Winlund	Chartguide, Mexico We	\$ 45.00
0504	Wood	Corals, of the World	\$ 30.00
0850	Zinn	Mar. Mol. Cape Cod C	\$ 8.00
S&SL		Domestic Subsc.	\$ 24.00
S&SL		Overseas Subsc. surf	\$ 30.00
S&SL		Overseas Subsc. air	\$ 40.00
S&SL		Institutional Subsc.	\$ 36.00

SEASHELL TREASURES BOOKS

Shells and Sea Life Publications
1701 Hyland, Bayside CA 95524
H. Sally and Steven J. Long
(707) 822-1024

ORDER FORM

Name _____	_____	
Street _____	_____	
City/State _____	Zip _____	
Phone no. _____	Best time to call _____	
Ord # _____	Author and Title _____	Price _____
1 _____		\$ _____
2 _____		\$ _____
3 _____		\$ _____
4 _____		\$ _____
5 _____		\$ _____
6 _____		\$ _____
7 _____		\$ _____
8 _____		\$ _____
9 _____		\$ _____
10 _____		\$ _____
11 _____		\$ _____
12 _____		\$ _____
13 _____		\$ _____
14 _____		\$ _____
15 _____		\$ _____
16 _____		\$ _____
17 _____		\$ _____
18 _____		\$ _____
19 _____		\$ _____
20 _____		\$ _____
Total cost of books ... \$ _____		
Less subscriber discount ... \$ _____		
Calif. residents add 6% sales tax ... \$ _____		
Handling charge US; \$3.00, Overseas \$5.00 ... \$ _____		
Total payment in US dollars only please ... \$ _____		
Total amount enclosed or charge by Master Card _____ Visa _____		
No. _____ Expiration date _____		
Signature _____		

Award-Winning Photo Posters.....

by Howard Hall



The perfect gift for divers...
by Howard Hall
WHALE TWILIGHT POSTER...Howard captured this breath-taking portrait of a grey whale breaching against a pastel ocean sunset while diving in a kelp bed off the California coast.

\$10.00



MANTA FANTASY POSTER...While diving in the Sea of Cortez, Mexico, Howard photographed this magnificent manta ray as it soared through the depths, allowing a diver to ride on its back.

\$10.00

Field Guide to Marine Invertebrates



Submersible field guides

Plastic cards, full color

Fishwatcher's Field Guide
F. G. to Marine Invertebrates
Red Sea Fishwatcher's F. G.
Hawaiian Fishwatcher's F. G.
Aussie Fishwatcher's F. G.
Beachcomber's F. G. - Shells
(Tropical Atlantic, Caribbean & Gulf of Mexico)

Each 6" x 9" card is \$4.95
Set of 7 cards for \$30 (save 15%)

Successful Underwater Photography

by Howard Hall
Howard Hall's spectacular full color U/W photos, a clearly organized text and ample illustrations fully reveal what every serious photographer needs to know in order to obtain **SUCCESSFUL RESULTS**. The author categorizes types of underwater photos and then analyzes the specific equipment, film, and techniques needed to take them...such as lighting, camera settings, strobe and subject placement. This outstanding book, with its unique organization and **PHOTO-BY-PHOTO** approach, has proven to be a highly effective text for photo courses. It is currently being used in underwater photography instruction all over the world. Drawings and Full Color U/W Photos
Softcover — 192 pages



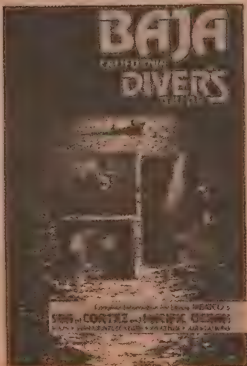
\$14.95



Baja California Divers Guide

by M. & L. Farley
For traveling divers, this is the most comprehensive book available on diving Baja's Sea of Cortez and Pacific Ocean. Complete with detailed maps, illustrations and photos, it details dive sites, charter boat information and provides useful information on weather, water conditions, tourist facilities and diving seasons. Full color fish identification section included. This book is a must for anyone diving in Baja's magnificent Sea of Cortez or Pacific Ocean.

Maps, photos, illustrations
Softcover — 224 pages



\$12.95

Scuba Equipment Care And Maintenance

by M. Farley/& C. Royer
This complete reference book is a must for every certified diver. It outlines procedures for the proper care of scuba gear, emphasizing the importance of periodic inspections and overhauls. Designed for all levels of divers, it is continually updated and revised. PADI says...\"This dynamic text is the finest and most comprehensive guide available.\" NAUI says...\"This is a great book. How did we ever get along without it?\"
Drawings and Photos
Softcover — 176 pages



\$9.95



NOTES

Please list the author and title for each publication you want along with the order number. California sales tax will be charged on all California dealer orders unless we have a completed & signed exemption card on file.

New books will normally be in stock and available for shipment quickly. Other books may be one-of-a-kind or low quantity stocking items. Please allow 6 to 8 weeks for delivery.

All journals and serial publications are \"as issued\" unless otherwise noted. Many individual issues are not listed here. Please send specific interests if you are looking for complete sets or parts of serial publications. We will notify you of their availability. Subscriptions are available to many of these journals and serials. Please allow a minimum of 60 days for subscriptions to arrive. We can trim or bind books and papers for you. Please specify what you would like. Prices vary but are reasonable -- estimates on request. We also maintain open orders for specific serials, books & author papers (at a 10% discount) and will ship automatically as they arrive.

Abbreviations used: PHO-Photocopy; SWS-Severe waterstaining; AV-average condition; FA-fair condition; WS-Waterstained; SB-Soft-bound; HB-Hardbound; MF-Microfiche (24x, 105mm); POS-Positive appearing film; NEG-Negative appearing film; RL-Roll microfilm (16mm, 24x); RPT-Reprint edition.

We make every effort to prevent damage to books with careful packaging. Books do not always reach us in \"perfect\" condition but we put \"damaged\" books in our discount pile. Space prevents listing many smaller papers, books and individual serial parts here. Please send your want lists for specific books (and subject areas) to us. We can often provide photocopies or individual articles. Used or slightly damaged copies of books may be discounted 10% or more from the regular price and will be substituted as available if you so indicate on your order form.

Antiquarian Booklist

7234 ABBOTT, R.T. 1958. *Marine Mollusca of Grand Cayman Island, British West Indies*. 143 p. illustrations + index Softbound - \$18

7020 ABBOTT, R.T. 1973. *American Malacologists*. First edition. 494p. HB. 1975 Supplement. p.495-609 SB. Information indicates that the new editions will not include the early malacologists. Set of two books now out of print. - \$18

7115 ABBOTT, R.T. 1976. *The Best of the Nautilus*. 280 pages with copies of many of the original illustrations taken from The Nautilus early issues. Many interesting articles and stories from the early years of American malacology. Now out of print. Hardbound - \$15

7105 ABBOTT, R.T. *American Seashells*, 2nd Ed., 24 col. pls., 4000 B&W illus. Over 300 shells are illustrated and described in detail. Hardcover - \$60

7219 ABBOTT, R.T. *Kingdom of the Seashell*. 256 pages, 250 illustrations in color & halftones. Hardbound - \$16

7247 ABBOTTSMITH, F. *Multiform Australian Volutes*. Excellent line drawings illustrate the change of color patterns & structural differences found in the same species from different areas. Maps & charts. Spiral bound, large format - \$25

Z124 ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, 1920-1930. Year Books. Missing 1921. Each book softbound and about 100 pages with several plates. The set is in good condition with some soiling of covers and nicks and dings. List members and staff of the Academy with financial reports and accessions including photos and essays on the works and collections of the Academy for the year. - \$200

Z125 ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, 1926-1928. Year Books. Three books for the years mentioned. Covers scuffed and one torn, contents good. - \$60

8770 ALDER, J. & HANCOCK, A., 1845. *A Monograph of the British Nudibranchiate Mollusca: with figures of all the Species*. Ray Society, London, 23p., 10 pls. hand colored 13.5x9.5", boards, worn, with some smudging & foxing. Includes Family 1, pls. 4, 5 & 26 plus Family 3, pls. 3, 21, 24, 26, 34-36. - \$48

3000 ALDRICH & SNYDER, *Florida Sea Shells*. 122p., 11 pls, fine condition, d/w Hardbound - \$10

7456 ALTENA & GITTENBERGER *Genus Babylonica*. From Zoologische Verhandl. #188. Descriptions of the genus., 57p., 11pls. Softbound - \$12

Z115 ALVIN, K.L. 1971. *Weichselia reticulata (Stokes et Webb) Fontaine from the Waldean of Belgium*. Inst. Royal des Sciences Nat. de Belgique, Memoire No. 166, 33 p. 13x10 uncut, tbls, figs., pls. 1-9. As issued - \$25

7319 Andrews, J. *Shells & Shores of Texas*. 24 pages of color plates. Fine coverage of the Gulf Coast shells. Good cloth binding. 365p. Hardbound - \$40

60228 Angel, H. 1981. *The Guinness Book of Seashore Life (Britain's Natural Heritage)*. Guinness Superlatives Ltd., ISBN 0 85112 304 X, 160p., color plates, maps & line drawings throughout, Clothbound 135 x 200mm, d/w, as new - \$16

2009 Annales du Musée d'Histoire Naturelle de Marseille, 1903. Tome 8 includes biographical notices for A. Kowalewsky, H. Gaudion & P. Gourret, along with 3 Memoires. 1. Pallary, P., Addition a la faune conchyliologique de la mediterrannee. 2. Couturier, M., Catalogue des coquilles palearctiques terrestres et fluviales de la collection du Dr. Hagenmuller. 3. Vayssiere, A., Recherches zoologiques et anatomiques sur les Mollusques Opistobranchies du golfe de Marseille - Supplement. 3 plates and several figures. 12x9" mostly uncut pages, fraying at edges - \$34

2010 Annals of the *Natal Museum* 1969-1983. Vol. 19-25 complete. About 400 pages per volume with several molluscan papers in each volume. Important reference work for malacology. - \$395

Z123 Annual Report *Smithsonian Institution*, 1891 [for 1890]. 811p., 163 pls., 99 text-figs., Black cloth binding spitting. Text in good condition. Includes articles on humming birds, printing, fire making, Eskimos, pit-dwellers of Japan, Ainos of Japan, Indian paintings, log of the Savannah, anthropology at the Paris Exposition in 1889 and Handbook for the Dept. of Geology in the USNM, Part I, by G.P. Merrill. - \$42

Z121 Annual Report *Smithsonian Institution*, 1893 [for 1892]. 620p., 99 pls., 5 text-figs., Bound black cloth, fair condition, some signatures loosening but still together. Includes articles on Japanese wood-cuts, biological and geological investigation relationships, scientific taxidermy, the Shofar, Crump Burial Cave, minute stone implements from India, and comparative Oology of North American birds. - \$32

Z122 Annual Report *Smithsonian Institution*, 1893 [for 1892]. Another copy in better condition with half leather binding (scuffed). The spine is marked "Part II" but it is identical to Z121. - \$36

7444 Arakawa, K. *Shells on Stamps of the World*. In both Japanese & English text. 144 countries covered. 438 pages, 16 full color plates plus many halftones. Hardbound - \$20

8707 Arnaud, P.M. & C. Poizat 1979. *Donnees ecologiques sur des Caecidae (Gasteropodes Prosobranches) du Golfe de Marseille*. Malacologia, 18:319-326, tbl. 1, figs. 1-2. separate - \$3

60273 Arnold, R. & R. Anderson. 1910. *Geology and Oil Resources of the Coalinga District, California*. USGS Bull 398, 354p., 50 pls., 2 pocket maps, 9 figs., 9 x 6". Hundreds of fossils shown on the plates. Back cover with 2 pocket maps missing - \$26

60277 Arnold, R. 1909. *Paleontology of the Coalinga District, Fresno and Kings Counties California*. USGS Bull. 396. 173p., pls. 1-30, 9 x 6" - \$32

7806 Aubry, U. 1984. *Terebridae (Mollusca: Gastropoda)*. published by the author. 48 p.; 15 color pls. Softbound - \$20

60222 Austin, W.C. & M.M. Deutsch 1978. *Marine Biota of the NE Pacific: A Bibliography Emphasizing Systematics and Distribution*. Khoyatan Marine Laboratory 207p. - \$45

7461 Backhuys, W. *Land & Freshwater Molluscs of the Azores*. Thesis. 450p., 32pls. Softbound - \$53

60275 Bagg, R.M., Jr. 1912. *Pliocene and Pleistocene Foraminifera from Southern California*. USGS Bull. 513, 153p., 28 pls, 3 figs., 8vo., very good condition. - \$18

7356 Bagnis, R. & E. Christian *Underwater Guide to Tahiti*. 152 pages filled with superb color photos of the beaches, tidepools, fish, mollusks, invertebrates and diving areas of Tahiti. Soft cover with clear plastic jacket. - \$16

3003 Baker, F.C. 1919. *Mollusca of the Crocker Land Expedition to northwest Greenland and Grinnell land*. Bull. AMNH 41(11):479-517, pls. 25-27. - \$10

R026 Baldwin, E.M. 1964. *Geology of Oregon*, 2nd ed. 8.5x11" format, SB - \$20

1977 Barnard, K.H., 1958. *Contribution to the knowledge of South African Marine Mollusks*. Part I. Gastropoda: Prosobranchia: Toxoglossa. Ann. S. Afr. Mus., 44(4):73-163, pl. 2. Scarce and in excellent condition - \$30

7399 Barnes *Invertebrate Zoology*. Excellently illustrated. Photos illuminate the informative narrative for serious students of biology and zoology. - \$20

Z110 Barnes, R.D. 1963. *Invertebrate Zoology*. Saunders Co., Philadelphia, 632 p., ill. Clean bound copy. - \$15

0111 Barr, L. & N. Barr, *Under Alaskan Seas*. The Shallow Water Marine Invertebrates. Alaska Northwest Publishing Co., 208 pages, 241 color photos. Softcover - \$15

1981 Bartsch, P. 1909. *Pyramidellidae of New England and the Adjacent Region*. Proc. Boston Soc. Nat. Hist., 34(4):67-113, pls. 11-14. [uncut - very good condition, some staining on spine] - \$30

1986 Bartsch, P. 1913. *The Giant Species of the Molluscan Genus Lima obtained in Philippine and Adjacent Waters*. Proc. USNM, 45(1978):235-240, pls. 12-20. - \$11

7508 Basly, J. *Mollusca Marinos Del Norte de Chile*. Spanish. 49p., paperbound catalog of mollusks of northern Chile. Black & white photos. - \$11

60211 Beedham, G.E. 1972. *Identification of the British Mollusca*. Hulton Educational Publ. Ltd., Pitman Press, Bath, England 236p., many line illus., 5 x 7.75", softbound. - \$13

7413 Behrens, D.W. *Pacific Coast Nudibranchs*. Includes color photos of many undescribed species. Softbound - \$20

7441 Bennett, I. *Great Barrier Reef*. Includes color photographs, maps and diagrams. A beautiful hard bound coffee table book. - \$45

8762 Bernard, F.R. 1979. *Bivalve Mollusks of the Western Beaufort Sea*. Contrib. Sci., Nat. Hist. Mus. Los Angeles Co., (313):1-80, figs. 1-112, Append., halftone & line ill., SB, - \$12

7497 Bernard, F.R. 1983. *Catalog of Living Bivalvia of the eastern Pacific Ocean: Bering Strait to Cape Horn*. 1308 species 102p. - \$10

3051 Bernard, P.A. 1984. *Coquillages du Gabon. Shells of Gabon*, 140p., 69 col. pls., French & English text, softbound - \$44

8769 Berry, S.S. 1914 for 1912. *The Cephalopoda of the Hawaiian Islands*. Bull. Bur. Fish., Doc. (789), 32:255-361, pls. 45-53, figs. 1-40, tbls., 11x7.5", SB, some browning and small tear edge 1 page. - \$35

7300 Birks, H.J.B. & H.H. Birks 1980. *Quaternary Palaeoecology*. University Park Press, Baltimore, 289pp. - \$20

R007 Blatchley 1900. *Indiana Dept. Geology - 25th Annual Report (includes Devonian Fossils)*. Bound - \$50

7473 Bodoni, L. *Cipree Raie*. Italian text, 207 pages, many illustrations. A gorgeous book. Oversize "coffee table" edition. Hardcover - \$90

7320 Bolles Lee, A. & L.F. Henneguy 1896. *Traite methodes techniques l'anatomie microscopique histologie, embryologie et zoologie*. 515pp. HB, AV - \$75

7330 Borgese, E. 1975. *The Drama of the Oceans*. HB 258pp., many color pls. - \$25

7462 Bosch, D. & Bosch *Seashells of Oman*. 208 pages, over 350 full color illustrations. Hardcover - \$40

60217 Branch, M. & G. Branch 1985 [3rd impression]. *The Living Shores of Southern Africa*. C. Struik Publishers, South Africa, 312p., 142 color photos, 388 line drawings, ISBN 0 86977 115 9, Hardbound with d/w - \$39.95

7130 Brann, 1966. *Illustrations to the Catalogue of Mazatlan Shells*. 111 p., 60 pls., B&W drawings - \$14

7340 Braun, E. 1975. *Tideline*. Viking Press, 144 pp., Hardbound book with many illustrations - \$15

7455 Breure A.S.H. & A.A.C. Eskens *Notes and Descriptions of Bulimulidae #186*. Zool. Verhand. Anatomical data 52 species. 376 figs, 4 tbls, 8 pls. - \$29

7103 Brigham, W.T. 1900. *An Index to the Islands of the Pacific Ocean*. Bishop Museum, Memoir, 1(2):173 p., figs., maps, tbls. Reprint SB - \$50

60210 Brown, A.W. 1901. *X. Crustacea (Including Gigantostaca and Pantopoda)*. Zool. Record, 38:1-60. - \$15

7179 Brown, D.S. 1980. *Freshwater Snails of Africa and their Medical Importance*. 400 species, most illustrated, 450 pages, HB., 153 text figs. - \$65

3074 Bulletin of the AMERICAN MALACOLOGICAL UNION, *Index 1934 through 1974* - \$10

2958 Bulletin of the Institute of Malacology Tokyo, 2(03):45-60, pls. 16-23. July 10, 1985 - \$10

2956 Bulletin of the Institute of Malacology Tokyo, 2(01):1-18, pls. 1-8. October 30, 1984 - \$10

2957 Bulletin of the Institute of Malacology Tokyo, 2(02):19-44, pls. 9-15. April 30, 1985 - \$10

2370 Bulletins de la Societe Malacologique de France 1882-1890, Vol. 1-7, original uncut pages; about 400 pages per volume as issued. Primary reference for European mollusca, includes many new species descriptions. This set will bind into a beautiful addition to your library. Rare complete set. - \$695

R057 Bulletins of American Paleontology, 1928-1955. Vol. 12(48), 23(78), 32(132)-36(155) - \$450

R058 Bulletins of American Paleontology, 1936. Volume 23(78): 62p., 7 pls. - \$40

B010 Burch, J.Q. & R.L. Burch, 1960. *Catalogue of Recent and Fossil Olives*. Minutes Conch. Club So. Cal., (196):1-46. Reprint, bound with covers - \$10

7500 Burgess, C.M. 1985. *Cowries of the World*. Color throughout this large volume with photos of all known cowrie species including shells and living animals. More than 150 pages of color with each species illustration on the same page with the text describing the animal, its habitat, and range. Beautiful hard cover book. - \$95

7390 Buschmeyer, H. 1938. 70 Jahre Molluskenkunde (1869-1938). Senckenbergische Naturforsch. Gesellsch., 108pp. Index of papers 1869-1938 - \$15

R014 Calver 1962. *Guidebook to Coastal Plain of Virginia*. Virginia Dept. Conservation & Ecological Development. - \$15

60227 Cambridge Natural History? 1908. *VII. Mollusca*. 299-490, many figs. & illustrations, index. bound neatly in light boards & tape, good condition - \$10

R038 Canu & Baseler 1933. *US Nat. Museum Bull. 165. Bryozoan Fauna of Vincentown Limestone*. - \$35

3100 Carfel *Philippine Shell News*, 1979-1982. Four volumes bound in covers. Many color and black & white illustrations. Six issues per year. - \$50

7131 Carpenter, P.P. 1967 Reprint of 1857 book. Catalogue of the Collection of Mazatlan Shells in the British Museum. SB, 552 pages. - \$13

7439 Castell, C.P. and others. 1975. *British Fossils. Caenozoic, Mesozoic, Palaeozoic*. 5th ed. Brit. Mus. (NH), British Caenozoic Fossils, 132 pages, 44 pls. British Mesozoic Fossils, 209 pages, 73 pls. British Palaeozoic Fossils, 203 pages, 69 pls. Three volume set, softbound, with slip case. Includes maps and tables. - \$30

7232 Caum, E.L. 1928. Check list of Hawaiian land and fresh water mollusca. Bernice P. Bishop Museum, Bull. 56, p. 1-79, Softbound Reprint 1974 - \$13

8824 Celebonovic, S., G. Grigson, A. Maurois. [Translated by J. Emerson & S.A. Popcock] 1957. *The Living Rocks*. Readers Union, Phoenix House, London, 95p., 64 full page halftone plates. 205 x 285mm, one page torn but complete, hardbound, knocked corners & some wear, dust cover - \$15

7238 Cernohorsky, W.O. 1978. *Tropical Pacific Marine Shells*. 552p., illus. - \$70

7833 Cernohorsky, W.O. 1981. Revision of the Australian and New Zealand Tertiary and Recent Species of the Family Nassariidae (Mollusca: Gastropoda). Rec. Auckland Inst. Mus., 18:137-192, 92 figs. \$10

7803 Cernohorsky, W.O. 1984. Systematics of the family Nassariidae. 356p., 172 text-figs., 51 black and white plates. - \$44

7472 Chatenay, J.M. Niger and Rostrate Cowries of New Caledonia. Printed in both English and French. Many color plates. 109 pages. Softcover - \$30

8799 Ciriacks, K.W. 1963. Permian and Eotriassic Bivalves of the Middle Rockies. Bull. Amer. Mus. Nat. Hist., 125, Art. 1:1-100, pls. 1-16, figs. 1-4, tbls. 1-25, crato - \$18

R032 Clark & Twitchell 1915. *U.S.G.S. Mesozoic and Cenozoic Echinodermata of the US*. - \$100

7469 Clarke, A.H. 981. *The Freshwater Molluscs of Canada*. Field guide 179 species. All species illustrated in halftones. 446p. - \$40

7118 Coleman, N. A Field Guide to the Marine Life of South-Eastern Australia. Rigby Publishers Ltd., 167 pages, 200 color photos. Hardbound - \$20

7498 Coleman, N. *Shells Alive*. 96 pages, Color and halftone illustrations. Hardcover - \$15

0843 Colin, P.I. *Caribbean Reef Invertebrates & Plants*, A field guide to the invertebrates and plants occurring on the coral reefs of the Caribbean, the Bahamas and Florida. 512 pages, illustrated in full color. Hardbound - \$30

R016 Collins, J.S.H. et al 1958-1975. 10 separates on Decapod Crustaceans and Cirripedes. - \$15

8810 Conchological Society of Great Britain and Ireland 1902. List of British Marine Mollusca. 1904. List of British Non-Marine Mollusca. 1902. The Census of the British Land & Freshwater Mollusca. About 70 pages, cloth bound, 216x138mm, heavily annotated copy, including handwritten cross-index - \$30

7175 Conrad T.A. 1893. *Fossil Shells of the Tertiary Formations of No. Amer.* 1963 reprint of this valuable work. SB. 122p., 20 B/W plates, map. - \$12

- R036 Cook, 1888. Geological Survey of New Jersey. Annual Report. Triassic or Red Sandstone Rocks. - \$65
- 1955 Cooke, C. Montague, Jr. & Yoshio Kondo 1960. Revision of Tornatellinidae and Achatinellidae (Gastropoda, Pulmonata), Bishop Mus. Bull. 221. 1971 Reprint. - \$32
- 7339 Cooke, C.M., Jr. 1931. The land snail genus *Carelia*. Bernice P. Bishop Museum, Bull. 85, p. 1-98, pls. 1-18. Reprint 1971, softbound - \$19
- 7341 Cotton, B.C. 1961. South Australian Mollusca - Pelecypoda, complete and detailed coverage. SB., 363p. 350 text-figs. - \$25
- 7340 Cotton, B.C. 1964. South Australian Mollusca - Chitons, detailed coverage of the group. SB. 151p. 139 text-figs. - \$15
- 7342 Cotton, B.C. South Australian Mollusca - Archaeogastropoda. - \$30
- 8705 Cousteau, J.-Y. & P. Diolé, 1973. Octopus and Squid. The Soft Intelligence. Doubleday & Co., New York, 304p., many illustrations in color, halftone, and line, Cloth 10.5x7" fine condition - \$20
- 1943 Cousteau, J.Y. 1953. The Silent World. Hardbound 1st ed., 2nd printing, fine condition - \$15
- 1942 Cousteau, J.Y. 1963. The Living Sea. Hardbound 1st ed. with dust jacket. Fine condition - \$15
- 1966 Cox, I. [Ed.] 1957. *The Scallop. Studies of a shell and its influences on humankind*. Shell Transport & Trading Co., Ltd., London, 135p., about 96 illustrations, almost all in color. 210 x 280mm hardbound with gold stamped cover - \$30
- 60278 Cox, K.W. 1960. Review of the Abalone in California. Calif. Fish & Game 46(4):381-406, 9 figs. (8 color) - \$13
- 7560 Crowder, W. 1931. Between the Tides. 461pp., illus. Original hardbound edition. AV - \$15
- R040 Cushman 1946. USDI Prof Paper 206, Upper Cretaceous Foraminifera - Gulf Coastal Region. - \$45
- R010 Cushman, et al 1940. U.S.G.S. Prof. Paper 196A, Deep Sea Cores, Foraminifera. - \$40
- 3045 Cushman, J.A. & Siegfus 1942. Foraminifera from the type area of the Kreyenhagen shale of Calif. Trans. SDSNH, 9(34):385-426, pls 14-19 - \$10
- 3071 Cushman, J.A. 1919. Recent foraminifera from off New Zealand. Proc. USNM, 56:593-640, pls. 74-75. - \$10
- 3072 Cushman, J.A. 1921. Foraminifera from the north coast of Jamaica. Proc. USNM, 59:47-82, pls. 11-19. - \$10
- R030 Cushman, J.A. 1948. Foraminifera - Classification and Economic Use. - \$35
- 1956 D'Angelo, G. & S. Gargiulo 1978. Guida alle Conchiglie Mediterranee. Conoscere cercale collezionarie. Fabbri Editori, Italy, 224 p., color illustrations and maps. Hundreds of color illustrations and maps. Italian with scientific names. Hardbound - \$35
- 8822 Daglish, E.F. 1956. *The Seaside Nature Book*. The Country Book Club, London, i-viii + 231p., 8 col. pls., 8 b/w pls., 78 text figs. Includes 3 color & 2 b/w pls. on shells of Britain. 110 x 175mm, clothbound. - \$18
- 7139 Dall, Bartsch & Rehder 1938. Manual Recent & fossil mar. pelecypod mollusks of the Hawaiian Islands. Bull. 153:1-233, pls. 1-58, figs. 1-28 RPT 1971 SB - \$50
- 1984 Dall, W.H. 1902. Illustrations and Descriptions of New, Unfigured, or Imperfectly Known Shells, Chiefly American, in the USNM. Proc. USNM 26(1264):499-566, pls. 27-40. [no cover, library stamp on 1st page, otherwise clean] - \$35
- 1983 Dall, W.H. 1902. Synopsis of the Family Veneridae and of the North American Species. Proc. USNM 26(1312):335-412, pls. 12-16. [no cover, pages loose but in good condition] - \$25
- 1985 Dall, W.H. 1909. Report on a Collection of Shells from Peru, with a Summary of the Littoral Marine Mollusks of the Peruvian Zoological Province. Proc. USNM, 37(1704):147-294, pls. 20-28. [no cover, pages loose, but in excellent condition] - \$50
- 7142 DaMotta, A.J. & P. Lenavat Cone Shells of Thailand. Describes and illustrates 176 cone shells from the Anadaman Sea. Softbound - \$15
- 7366 Dance, S.P. The World's Shells. 192 pages, color, halftone & line illustrations. Includes an excellent glossary, bibliography, and index Hardbound - \$11
- 1963 Darwin, C. 1888. The Descent of Man and Selection in Relation to Sex. 2nd ed. Revised and augmented. 693p., some uncut. Good condition in green cloth binding. - \$50
- 8702 Darwin, C., 1897. Journal of Researches into the Natural History and Geology of the countries visited during the Voyage of H.M.S. Beagle Round the World, under the Command of Capt. Fitz Roy, R.N., new ed. Appleton & Co., New York i-x + 1-519, wood-cut ill., original half-leather binding 8x5", worn, but good condition, corners knocked - \$125
- 1997 Davidson, T. 1965. Tree Snails, gems of the Everglades. National Geographic, 127(3):372-387, 27 col. ill. - \$12
- 1950 Davis 1928. Coral Reef Problem. 612 pages. 1967 reprint - \$40
- 3013 De Spieghel 1952. "Gloria Maris" Shells. 80 p., 64 plates, Hardbound - \$10
- 3002 Dell, R.K. 1952. The Recent Cephalopoda of New Zealand. Dominion Mus. Bull. (16):1-157, pls. 1-35. - \$16
- Z111 Desor, E. & P. de Loriol 1868. Echinologie Helvetique. Description des Ourins Fossiles de la Suisse. Part I, bound black cloth, 108 p. [12 text pages clean photocopy bound in], pls. 1-12. some foxing on pages. Part II, leather 1/4 with brown cloth, 398 p., pls. 1-33. Good copy with some wear on binding and waterstaining not affecting plates. - \$195
- 7302 Ditlev, H. 1980. A field-guide to the reef-building corals of the Indo-Pacific. 291p., 390 photos, 20p. color. Hardbound - \$32
- 1979 Dodge, H. 1955. A Historical Review of the Mollusca of Linnaeus. Pt. 3. The Genera *Bulla* and *Voluta* of the Class Gastropoda. Bull. Amer. Mus. Nat. Hist., 107(1):1-158. Cover soiled, otherwise fine. - \$30
- 7690 Dugan, J., R.C. Cowen, et. al., 1967. World Beneath the Sea. 204pp., color photos. - \$15
- R023 Dunbar, C.O. 1949. Historical Geology. - \$30
- 1970 Duncan, F.M. 1943. British Shells. - \$20
- R029 Eastman 1904. Annual Report State Geologist New Jersey. Triassic Fish of New Jersey. - \$40
- 7700 Eclogae Geologicae Helvetiae 1923-24. Vol. 18(1-4):1-635 + many color & B&W pls. & illus., fold-outs. Societe Geol. Suisse. Library binding - \$48
- 7136 Edmondson, Fisher et al 1925. Marine Zoology of Tropical Central Pacific. Bishop Museum, Bull. 27, p.1-148, pls. 1-11. RPT 1971, softbound - \$30
- R042 Elias 1933. Bull. Univ. Kansas, Vol. 34(5), Cephalopods Pierre Formation. - \$25
- 8818 Ellis, A.E. 1926. British Snails. A Guide to the Non-Marine Gastropoda of Great Britain and Ireland. Pliocene to Recent. 1st ed. Clarendon Press, Oxford, 8vo, 275p., 14 pls. (2 sepia), 11 text figs., Original cloth in excellent condition with gilt design on front. - \$50
- 7443 Estival, J.C. Cone Shells of New Caledonia and Vanuatu. This book describes 104 identified cones and has 41 full color plates showing excellent reproductions of the shells. Hardbound - \$25
- 7750 Evans, I.O. 1964. The Observer's Book of Sea and Seashore, HB - \$10
- 7760 Evans, J.G. 1972. Land Snails in archaeology. With special reference to the British Isles. Seminar Press, London & New York, 436pp. - \$18
- 7248 Fair, R. Murex Book. Covers the Muricidae, Muricopsinae and Ocenebrinae. 23 pages of high quality photo plates. Over 400 species shown with full synonymy. Softbound - \$10
- 7303 Fair, R. Shell Collectors Guide. 35 halftone drawings, 9 maps. Hardbound - \$20
- Z119 Fallot, J.-E. 1885. Etude Geologique sur les Eclats Moyens et Supérieurs du Terrain Cretace dans le Sud-Est de la France. Masson, Paris, 268p., pls. 1-8, Cloth and boards, 9.5x6.5, 41 text figs, some foxing not affecting plates. Binding worn but solid, text good condition. About 20 species of mollusks, echinoderms, and brachiopods described as new. Excellent description of the geology of the region. - \$90
- 7402 Farmer, W.M. Sea-Slug Gastropods. Opisthobranchs representing 7 orders, 41 families and 157 species occurring from Panama to Alaska are drawn by the author. 177 pages, color key for all drawings. Softcover - \$10
- 1952 Feininger, A. Shells. *Forms and Designs of the Sea*. 130 pages. - \$12
- 60226 Figuiet, L., [late 1800's?]. *The Ocean World: being a description of the Sea and some of its Inhabitants*. From the French of Louis Figuiet. New edition, revised by E. Perceval Wright, M.D. Cassell, Petter & Galpin, London 656p., 435 illustrations (woodcuts), 120 x 185mm, Red cloth with gilt edge & stamping, good condition, some wear on spine & corners. - \$65
- 7120 Fretter, V. & A. Graham British Prosobranch Molluscs. 755 p., Many illus. A very important foundation work. Hardbound - \$75
- 7765 Friese, U.E., Marine Invertebrates. 240 pages, 1 halftone, 119 col. photos, soft cover, 8x5.5" - \$15
- 1948 Furneaux, W.S. 1911. The Sea Shore. 436p., 8 color pls., 300+ B/W illustrations. Brown cloth binding, hand stitched. Some water staining and mended pages. Good coverage of flora and fauna of the sea shore. 50 pages on mollusks. - \$52
- Z116 Gabb, W.M. & G.H. Horn, [?1875]. Art. III. - Monograph of the Fossil Polyzoa of the Secondary and Tertiary Formations of North America. Jour. Acad. Nat. Sci. Philadelphia, 2nd ser., 5(2):111-179, pls. 19-21. Neatly bound in boards. Clean copy with only corner knocks. - \$30
- 7210 Galindo, E.S. Index and Register of Seashells. 533p., Some illustrations in color and halftones. Softbound - \$30
- R033 Gardner 1943. USGS Prof. Paper 199A. Mollusca, Miocene and Lower Pliocene of Virginia. and 1948. USGS Prof Paper 199B. Mollusca, Miocene and Lower Pliocene of Virginia. - \$45
- Z118 Geological Survey of Illinois, 1883. Vol. 7, Geology and Palaeontology. Geology by A.H. Worthen, Palaeontology by A.H. Worthen, O. St. John & S.A. Miller. 374p., 31 pls., Green cloth binding slightly worn and splitting inside binding. Should not require rebinding if used with care. - \$46
- R053 Geological Survey of New Jersey, 1907. Paleontology Vol IV. Text, and Vol. IV Plates, Cretaceous Fauna. - \$125
- R052 Geological Survey of New Jersey, G.H. Cook, 1868. New Jersey Geological Survey - \$25
- R051 Geological Survey of Ohio, Fourth Series, Bull. 25(1922), Pottsville Fauna of Ohio. - \$25
- 7194 Goldring Handbook of Paleontology for Beginners and Amateurs. Part 1. Reprint, Softcover - \$14
- 3009 Gratacap, L.P. 1901. Catalog of the Binney and Bland Collection of the Terrestrial Air-Breathing Mollusks of the United States and Territories, in the American Museum of Natural History, with Enumeration of Types and Figured Specimens, and Supplementary Notes. Bull. AMNH 14(23):335-403, pls. 41-56 (2 color pls.). - \$20
- 1962 Gray, S.O. 1867. British Seaweeds an introduction to the study of the marine algae of Great Britain and the Channel Islands. 312p., xciii, 16 hand painted color plates + L. Reeve & Co.'s Publications in Botany, Conchology & Entomology. Chemistry, Travels, Antiquities, etc. (book list) 24p. Green cloth binding. Good condition with slight foxing on the book list only. - \$160
- 7426 Greifeneder, D. 1981. Acta Conchyliorum Club Conchylia. Nr. 1/1981. Beitrage zur Kenntnis der Olividae. 200 pages, 28 plates of color prints, maps and tables. Every serious Olive collector must have this book! English edition Spiral bound - \$45
- 7753 Grossu, A.V. 1981. Gastropoda Romanica. Ordo Stylommatophora. 3. Suprafamilie Clausiliaceae Achatinaceae. Universitate din Bucuresti, Bucuresti, Hungary, 1-269, figs. 1-140 including 4 fold-out maps. Hungarian, with English, French & German summaries. - \$30
- 7754 Grossu, A.V. 1983. Gastropoda Romanica. Ordo Stylommatophora. 4. Suprafamilie Arionaceae, Zonitacea, Ariophantacea si Helicaceae. Editura Litera, Bucuresti, Hungary, 1-564, figs. 1-321. Hungarian, with English & German summaries - \$60
- 7001 Habe & Ito 1955 & 1961. Shells of Japan, Volume I & II. Japanese, English and Latin scientific names, color pls. 200+ pages per volume hardbound with dust cover and case. - \$85
- 6152 Halstead, B. 1980. Dangerous Marine Animals. 2nd ed, Cornell Maritime Press, 208 pages, 16 pls, 110 figs. Covers in detail the marine animals that bite, sting, shock or inedible. Illustrations of animals and stinging parts. Hardbound - \$16
- 60280 Halstead, B. Poisonous and Venomous Marine Animals. Large 3 volume set complete in good condition. Thousands of pages with hundreds of color plates. - \$600
- 60230 Harting, J.E. 1875. Rambles in Search of Shells, Land and Freshwater. John Van Voorst, Paternoster Row, London, 110p., 10 hand colored plates, 125 x 190mm, Red cloth binding, rubbed, but good, some neat pencil notes. - \$75
- 7960 Hertlein & Strong 1955. Marine Mollusks Collected "Askoy" Exp. Panama, Colombia, & Ecuador 1941. Bull. Amer.MNH, 107 art.2:159-318, pls.1-3. - \$18
- 67873 Hertlein, L.G. & U.S. Grant, IV 1960. *The Geology and Paleontology of the Marine Pliocene of San Diego, California. Part 2a, Paleontology*. Mem. San Diego Soc. Nat. Hist., Vol. II. 133p., pls. 19-26. - \$14
- 67874 Hertlein, L.G. & U.S. Grant, IV 1972. *The Geology and Paleontology of the Marine Pliocene of San Diego, California (Paleontology: Pelecypoda). Part 2b*. Mem. San Diego Soc. Nat. Hist., Vol. II. 275p., pls. 27-57, text figs. 7-13. - \$28
- 7509 Hertz, C. Illustrations of the types named by S. Stillman Berry in his "Leaflets in Malacology". 42 pages 98 b&w photos. - \$10
- 1959 Hibberd, S. The Seaweed Collector. A Handy Guide to the Marine Botanist suggesting what to look for, and where to go in the study of British algae and the British Sponges. Cloth binding. Good condition with slight water staining. 152p., 8 colored pls. and numerous wood engravings. - \$58
- 8031 Hickman, C.P. 1966. Integrated Principles of Zoology, 3rd Ed., 965pp., FA HB - \$10
- R028 Hicks & Titley 1966. Geology of the Porphyry Copper Deposits - Southeastern No. America. - \$30
- 7185 Hinton, A. Guide to Australian Seashells. This book has 77 full pages of color illustrations. Over 1600 individual shells are pictured which represent over 1060 distinct species and are arranged for easy identification. Format 8" x 10" printed on finest coated paper. **This is a must for collectors!** Hardbound - \$15
- 7192 Hinton, A. Guide to shells of Papua, New Guinea. Another outstanding book in the series of identification books by this famous author. 68 full page color plates representing 1450 separate shells of over 950 distinct species. Full coverage of the land shells of New Guinea as well as the marine shells. **A very excellent value!** Hardbound - \$15
- 3007 Hirase & Taki 1951. Handbook illustrated shells natural colors from Japanese Islands ... adjacent territories. 238p., 134 pls (130 color) Small tear in one page. nothing lost. HB - \$55
- R025 Holmes, A. 1945. Principles of Physical Geology. - \$30
- 8703 Holmes, S.J., 1911. The Evolution of Animal Intelligence. Holt & Co., New York, i-v + 1-296, 18 ill. line & halftone. Cloth binding 8.5x5.5" spotted a bit, some pencil side lines in text. A good copy - \$16
- 1947 Houghton, Rev. W. ?1876. Walks of a Naturalist with his children. Contains 2 parts. 1st part. 154p. country walks. 2nd part. 154p. seaside walks. Bound together with good cloth binding. Good condition, gold leaf page edges. - \$58
- 8050 Howchin, W. 1925-1930. The Building of Australia and the Succession of Life. Parts 1-3. Pp. 1-750. Covers both fossil and recent material. Very scarce set. Softbound in 3 volumes. - \$90
- 3046 Hoyt, M. 1967. Jewels from the Ocean Deep. The complete guide to shell collecting. **Shells and Sea Life, 18(2):15**

- G.P. Putnam's Sons, New York, p. 1-258, 81 line & half-tone ill. - \$18
- 7216 Hyman, L. The Invertebrates Volume VI. Mollusca 1. 792 pages, illus., graphs, charts and maps. - \$75
- R056 Indiana Dept. Geology and Natural Resources, 1901. 26th Annual Report (Indiana Mollusca) - \$45
- 2265 Indo-Pacific Mollusca Vol. 3, No. 15 Powell November, 1973. Patelid Limpets of the World (Patellidae). 132 pages, 123 plates. - \$21
- 02162 Indo-Pacific Mollusca Vol. 3, No. 16 Rehder, H. November, 1973. Family Harpididae of the World. 68 pages, 65 plates. - \$12
- 2243 Indo-Pacific Mollusca Vol. 3, No. 17 Cernohorsky, W.O. Mitridae of the World, Part 1, Subfamily Mitrinae, 256 pages. - \$43
- 2490 Indo-Pacific Mollusca Vol.2, No. 10 Powell September, 1969. Family Turridae in the Indo-Pacific, Part 2. 214 pages, 137 plates. - \$23
- 2491 Indo-Pacific Mollusca Vol.2, No. 11 Rottewater, J. November, 1970. Family Littorininae, Part 1. 90 pages, 62 plates. - \$15
- 2489 Indo-Pacific Mollusca Vol.2, No. 9 Abbott, R.T. August, 1968. Helmet Shells of the World (Cassidae). 202 pages. 187 plates, some in color. - \$30
- 2070 Indo-Pacific Mollusca. Complete set in 3 large binders with many color and half-tone plates. The early (and in many cases, most popular) sections have long been out of print. Some sections may be in photocopy. - \$295
- 60216 Informations. 1983. Volume 11(1-3):179p., 13 pls., side-stitched. Consists of Ricard A. Van Belle's "The Systematic Classification of the Chitons (Mollusca: Polyplacophora)." - \$30
- 7804 Jacobson, M.K. & W. Emerson Shells from Cape Cod to Cape May. Illustrated with many excellent identification drawings. SB - \$15
- 7097 Jacobson, M.K. & W.K. Emerson 1961. Shells of the New York City Area. 142pp, 150 drawings by A. D'Attilio. Hardbound - \$25
- 7487 Japan Science Museum World Seashells - Kawamura Collection. Large format. Includes absolute top quality color photos of many rare and unusual shells and forms. Soft cover - \$16
- R044 Jeffords 1942. Bull. Univ. Kansas, Vol. 41, Lophophyllid Corals - Lower Pennsylvania, Kansas & Oklahoma. - \$25
- 1978 Johnson, R.I. 1964. The Recent Mollusca of A.A. Gould. USNM Bull. 239:1-182. - \$15
- 2080 Johnsonia Vol. 1(1) - 5(50) (2 pages in photocopy). - \$250. A few individual volumes & numbers are available. Write for prices on specific parts.
- 2834 Johnsonia Volume 1 (Reprint) - \$50
- 2835 Johnsonia Volume 2 (Reprint) - \$50
- 8700 Johnstone, K.Y., 1970. Collecting Seashells. Grosset & Dunlap, New York, 198p., ill. HB, cover soiled and rubbed at corners - \$20
- 7410 Kaas, P. & R.A. Van Belle 1980. Catalog of Living Chitons. 144p., 8 vo. Cloth. - \$25
- 1953 Kaas, P. & R.A. Van Belle 1984. Monograph of Living Chitons (Mollusca: Polyplacophora). Volume 1 Order Neoloricata: Lepidopleurina. E.J. Brill, 240 pages, HB - \$55
- 7108 Kaestner, A. 1967. Invertebrate Zoology Volume I. Protozoa through Annelida (including Mollusca). 597p., many line drawings, some halftones. - \$47
- 3066 Karpinsky, A.P. 1945. Travaux scientifiques. I. Acad. Sci. URSS, 521p., illus. + fold-outs and separate plates. Hardbound. In Russian. - \$55
- 8150 Keen, A.M. 1958. Seashells of Tropical West America, 1st Ed. Fair condition. - \$24
- 7102 Keen, A.M. 1963. Marine Molluscan Genera of Western N.A. 1st edition. - \$15
- 8820 Kelman, J.H. & T. Wood [n.d.]. The Sea-Shore shown to the children. T.C. & E.C. Jack, Ltd., London, 146p., 48 col. pls., sm4to cloth binding with color picture on front, some wear but good condition throughout - \$65
- 60236 Kennedy, G.L. 1974. West American Cenozoic Pholadidae (Mollusca: Bivalvia). Shells and Sea Life, 18(2):16
- Memoir 8, San Diego Soc. Nat. Hist. 127p. - \$17
- 7285 Kensley, B. Sea-Shell of Southern Africa - Gastropods. 236 pages, illustrated in color and in half-tone drawings. Covers 910 species of gastropods. Cloth binding. - \$29
- 7851 Kerney, M.P., R.A.D. Cameron & G. Riley (Illus.). 1979. A Field Guide to the Land Snails of Britain and North-west Europe. Collins, Glasgow, U.K., p.1-288, 649 ill. (408 col.), 392 distributional maps, line drawings. Excellent coverage of the group. Now out of print, we have a few new copies. Hardbound - \$30
- 7854 Kerney, M.P., R.A.D. Cameron & J.H. Jungbluth 1983. Die Landschnecken Nord- und Mitteleuropas. 384 pages, 776 illus., col. B&W; German. HB - \$30
- 60252 Kesteven, H.L. 1904. The Anatomy of *Megaltrachus*. Mem. Austral. Mus. 4:419-450, pls. 39-42, figs. 119-122. - \$15
- 7474 Kilburn, R. & E. Rippey Seashells of Southern Africa. 249p., 49 color plates plus photos and over 200 illustrations. Large library hard binding. - \$62
- R045 King 1943. Bull. Univ. Kansas, Vol. 47, New Carboniferous and Permian Sponges. - \$25
- 3006 Kira 1954. Shells of Japan. 206p. 67 plates. Hundreds of shells illustrated in color. HB + hard slip cover. Text Japanese, Latin names. - \$35
- 7176 Kirkclady, J.F. Fossils in Colour. 183 full color specimens illustrated, with additional maps, charts and graphs. 4th revised edition. Hardbound - \$10
- 7286 Kirtisinghe, P. Seashells of Sri Lanka. 120 pages, 58 pages of color illustrations, 18 pages of halftones. Hardbound - \$16
- 60255 Kobelt, W. 1886. Catalog der Familie Melaniidae. (Nach Brot's Monographie in der zweiten Ausgabe des Martini-Chernitz.) Jahrb. Deutschen Malacozool. Gesell. 4:275-310. - \$11
- 7099 Kopper, P. 1982. The National Museum of Natural History. Harry Abrams, Inc., New York, 496 pages, color throughout. Coffee table book. Hardbound - \$65
- 7209 Kosuge, S. Illustrations of Type Specimens of Molluscs described by William Healey Dall. 64p., 29 half-tone pls. SB - \$18
- 7284 Kuroda, T. Habe & Oyama Seashells of Sagami Bay. Text full in both English and Japanese. 106 full page color plates and 15 pages of excellent halftones. Hardbound with book jacket and slip cover. Shipping weight is almost 10 pounds per book. - \$120
- 7111 La Rocque, A. 1966-1970. Pleistocene Mollusca of Ohio. Pts. 1-4. Ohio Geological Survey, Bull. 62. 800pp. + index pp. i-xxiv. SB - \$35
- 7429 Laboute, P. & Y. Magnier Underwater Guide to New Caledonia. This underwater guide describes the most representative types of flora and fauna found among the mangrove swamps, coral reefs, beaches and rocks of this region, and the photographs reveal a hidden world of beauty and color. Hardbound, 155 pages, 212 color photographs. - \$17
- 60265 Lamy, E. 1909. Two papers on the mollusks of the Gulf of California. 55p. [7p. photocopy] - \$14
- 7266 Lan, T.C. Rare Shells of Taiwan. 63 pages of full color plates of excellent quality, all with English descriptions. Hardbound - \$25
- 1999 Lane, F.W. 1974. Kingdom of the Octopus. Sheridan House, 300p., illus., Clean copy d/w some creasing otherwise fine - \$20
- 60281 Laney, F.B. & K. Hill Wood 1909. Bibliography of North Carolina Geology, Mineralogy and Geography with a list of maps. North Carolina Geological and Economic Survey, Bull. 18, 428p., 10 x 7", sort cover (loose), else good copy - \$22
- 60282 Lang, A. 1896. Text-Book of Comparative Anatomy. Translated into English by H.M. Bernard & M. Bernard. Part II, xvi + 618p., 473 figs. p.1-285 Mollusca; 286-560 Echinodermata; 561-602 Enterocephala. Worn green cloth binding, waterstained outside third most pages, serviceable. - \$32
- 7112 Laszlo, M. 1983. Magyarországi Pleistocén és Recens. Malakológiai Bibliográfia. 116pp. - \$20
- 3052 Lea Art. II. - New Unionidae of the United States. Acad. Nat. Sci. Philadelphia, Journal, NS, 5, pt 1, Art. 2 p53-109, pls.1-18 folio. EX - \$18
- 3053 Lea New Unionidae of the United States & Arctic America. Acad. Nat. Sci. Phila., Jour. NS, 5, part 2, Art. 5, p.187-216, pls. 24-33 folio. EX - \$15
- Z117 Lea, I. [1873] Art. XIX. - Descriptions of Exotic Genera and Species of the family Unionidae. Jour. Acad. Nat. Sci. Philadelphia, 2nd ser., 3(4):289-321, pls. 21-33. 12.5x10". Bound together with: Conrad, T.A. Art. XX. - Observations on a group of Cretaceous Fossil Shells, found in Tippah County, Miss., with descriptions of fifty-six new species. 3(4):323-336, pls. 34-35. Boards, clean copy. - \$36
- 3004 Lea, Isaac 1836. A Synopsis of the Family of Naiades. 61p., color frontispiece, WS HB - \$28
- Z114 LeBrund, P. 1971. Ecologie et Biocénose de quelques peuplements d'Arthropodes Edaphiques. Inst. Royal des Sciences Nat. de Belgique, Memoire No. 165, 203 p. 13x10 uncut, t/bis, figs, fold-outs. As issued - \$46
- 7118 Leydig, F. 1876? Ueber *Paludina vivipara*. Zeitschr. f. wissenschaft. Zool., pp.125-194. - \$21
- 8767 Lincoln, R.J. & J.G. Sheals 1979. Invertebrate Animals: Collection and preservation. Brit. Mus. (NH), viii + 150p., 17 pls., 9 figs. SB - \$10
- 7453 Lindberg, D. Acmaeidae. In this manual, all California limpets in the Family Acmaeidae are described, illustrated and discussed. Hardbound - \$20
- 8819 Lovell, M.S. [n.d. about 1885]. The Edible Mollusca of Great Britain and Ireland with Recipes for Cooking Them. 2nd ed. L. Reeve & Co., London, 310p., 12 col. pls. by G.B. Sowerby Lith., cr8vo, cloth binding with gilt design on cover, some wear and fading on cover and minor spotting in text, very good condition. - \$150
- 7119 Lozek, V. 1982. Faunengeschichte Grundlinien zur spat-und nachiszeitlichen Entwicklung der Molluskenbestande in Mitteleuropa. 92(4):106p. - \$17
- 7329 Lozet & Petron Shells of the Caribbean. Exceptional paperback with color illustrations. Good identification of all species. Common and scientific names. Synonyms, well indexed. English edition. Excellent! Softbound - \$13
- 7510 Lubinsky 1980. Marine Bivalve Molluscs Canadian Central & Eastern Arctic: 42 maps, 11 p. half-tone plates, 111 pages total. - \$13
- 7883 Lucifora, Donata 1977. Marvellous World of Shells. Translated by J. Peter Tallon. Abbey Library, London, 108 pages, color throughout, Hardbound - \$25
- 7150 Luther, R. & N. Chung Cowry & Cone Shells of Hong Kong. Fully illustrated in color. Softbound, 128 pages. - \$10
- 7126 MacGinitie, G.E. & N. MacGinitie, 1968. Natural History of Marine Animals. 2nd ed. 1-523, figs. 1-286. halftones & line drawings. Hardbound, new condition. - \$30
- 7236 Macpherson, J.H. & C.J. Gabriel 1962. Marine Molluscs of Victoria. 475p., 468 figs. Hardbound - \$25
- 8823 Major, A. 1979. Collecting Fossils. Illustrations by Barbara Prescott. John Bartholomew & Son Ltd., London, 124p., 219 ill. (line drawings). 195 x 270mm, hardbound, color dust jacket - \$15
- 7127 Mann, A. 1925. Marine Diatoms of the Philippine Islands. USNM Bull. 100, 6(1):182pp., 39 pls. - \$30
- 3015 Marcus, Ernst, 1958. On western Atlantic opisthobranch gastropods. AMNH Novitates (1906):1-82, figs. 1-111. - \$15
- 2860 Marcus, Ev. & Er. Marcus, 1967. American Opisthobranch Mollusks. Part I. Tropical American Opisthobranchs. Part II. Opisthobranchs from the Gulf of California. Studies in Tropical Oceanography, No. 6, viii + 256p., figs. 1-155 + 1-98. Clothbound - \$25
- 7143 Marsh, J.M. & O.H. Rippingdale Cone Shells of the World. 24 full page color plates, 158 pages. Hardbound - \$35
- 3862 Martini, F.C., Exploring Tropical Isles and Seas. An Introduction for the Traveler and Amateur Naturalist. Spectrum Books, 11 color plates, 100+ b/w photos and drawings. South Pacific and Caribbean islands. HB - \$28; SB - \$16
- R059 Maryland Geological Survey, 1904-1923. 10 volumes, one pair in reprint, 1 softbound, remainder green cloth bindings, well worn but very serviceable. Includes Cambrian & Ordovician, Silurian, Lower Devonian, Middle & Upper Devonian, Upper Cretaceous, Miocene and Lower Cretaceous - \$400
- Z104 Maury, C.J. 1930. O Cretaceo da Parahyba do Norte. Ministerio da Agricultura, Industria e Commercio, Album das Estampas da Monographia N. VIII, ii-xxiii, loose map, 35 plates. Folio size, all plates but 5 are mollusks. Tear on edge of first 4 plates not extending into the plate area. Soft cover worn on spine and dirty, text and plates very good. - \$110
- 60231 Mayo, ?C. 1846. Lessons on Shells, as given to children between the ages of eight and ten, in a Pestalozzian School, at Cheam, Surrey. 3rd ed. Seeley, Burnside & Seeley, London xiii + 228p. +16p. ads, 10 pls., 105 x 170mm cloth, slightly loose but good. - \$34
- 3025 Mayr, E. & C.B. Rosen 1956. Geographic Variation and Hybridization in Populations of Bahama Snails (*Cerion*). AMNH Novitates (1806):1-48, figs. 1-9, t/bis. 1-7. - \$10
- 3079 McEwan, E.D. 1919. A study of the brachiopod genus *Platystrophia*. Proc. USNM, 56:383-448, pls. 42-52. - \$10
- B002 McLean, J.H. 1966. West American Prosobranch Gastropoda: Superfamilies Patelacea, Pleurotomariacea, and Fissurellacea. Ph.D. Thesis, Stanford Univ., 255 p., 7 pls., photocopy, spiral bound with soft cover. - \$27
- 7253 McLean, J.H. Marine Shells of Southern California. 104p., illus. A primary reference for Southern California shells. Consistent good seller with Excellent black & white illustrations of most of the Southern California shells. Softbound - 1253 - \$10
- 7121 McMillan, N.F. British Shells. Concise text. Wealth of color and half-tone illustrations. 600 marine shells, 200 freshwater and land snails are described. 344 illustrations. 196 pages. Excellent. Hardbound - \$11
- 8821 Mead & Beckett Publishing 1984. The Reader's Digest book of the Great Barrier Reef. 384p., hundreds of color photos, 255x250mm, HB, d/w - \$42
- 7131 Mead, A.R. 1979. Pulmonates. [Fretter, V. & J. Peake, eds.] Volume 2B Economic Malacology. 150p. HB, illus. - \$25
- 0353 Melvin, O.G. 1000 World Seashells. (Rare to common with values). Describes 1000 rare to common species. Over 50 numbered plates in color and halftones. Values are given. Companion book to "Sea Shells of the World with Values". Completely different shell coverage. Hardbound - \$19
- 0275 Melvin, O.G. Seashell Parade. Rare shells are shown in excellent half-tone photographs (75 full pages of illustrations). 369 pages. Hardbound. - \$12
- 0289 Melvin, O.G. Seashells of the World with Values. Over 1100 shell species are listed with 27 full color pages and 27 excellent half-tone pages. Full descriptions with locations and sizes given. Prices of shells are given. 167 pages. Hardbound - \$20
- Z106 Memoirs of the Geological Survey of India. Palaeontologia Indica. 1955. Jacob, K. & B.N. Shukla - Jurassic plants from the Saighan Series of Northern Afghanistan and their Palaeo-Climatological and Palaeo-Geographical significance. West, W.D. - A note on the geology of the area. i-ii + 1-64, plates 1-13. Folio size, worn cover, good internally - \$40
- R009 Miller, Dunbar & Condra 1933. Nebraska Geological Survey. Nautloid. Cephalopoda. Pennsylvania. - \$20
- 1964 Miller, H. 1859. The Testimony of the Rocks. or. Geology in its Bearings on the Two Natural Theologies, Natural and Revealed. 501p., many b/w diagrams. Red cloth cover, badly damaged. Pages in good condition. - \$29
- 2190 Minutes of the Conchological Club of Southern California Complete set of 200 numbers (some reprint). - \$295
- 8220 Mitt. Bayer. Staatssamm. Palaont. hist. Geol. 1973. 13:205pp, 12 pls. German; English sum.; Miocene gastropods & Ammonites + paleo. - \$30
- 2975 Molluscan Digest 1971-1974. Bibliographical citations of all types of mollusk papers. Vol. 1(1)-4(2) all published to date. - \$30
- 2977 Molluscan Digest Individual volumes (specify which volume numbers you want) - \$13 ea.

- 2246 Monographs of Marine Mollusca No. 1. Houbbrick, R. Cerithiidae. illustrated color and halftones. - \$29
- 2424 Monographs of Marine Mollusca No. 2. Gernohorsky, W.O. 1981. 52p., 42 text-figs. - \$13
- R046 Moore & Dudley 1944. Bull. Univ. Kansas, Vol 52, Chelotrypid Bryozoans of Pennsylvanian and Permian. - \$25
- R043 Moore 1941. Bull. Univ. Kansas, Vol. 38, Upper Pennsylvanian Gastropods - \$25
- R002 Moore, R.C. [ed.] 1953-1971. Treatise on Invertebrate Paleontology. Parts E, F, G, H (1&2), I, K, L, N (1-3), O, P, Q, R (1&2), S (1&2) U (1&2), V, W. University of Kansas Press, Geological Society of America, 22 volumes. Dark blue cloth bindings, excellent condition. Shipping weight 58 lbs. - \$1250
- R003 Moore, R.C., C.G. Lalicker & A.G. Fischer 1952. Invertebrate Fossils. McGraw-Hill Book Co., Inc., 766 p., hundreds of line illustrations. Cloth binding, some wear, but very serviceable - \$44
- 1973 Morris, P.A. 1951. A field guide to the shells, rev. ed. Excellent condition with dust jacket, HB. - \$10
- 8806 Morton, J.E. 1979. Molluscs. 5th ed. Hutchinson, London, 264p., figs. 1-60, 215x133mm, SB - \$15
- 3863 Moss, S.A., Sharks. An Introduction for the Amateur Naturalist. More than 100 photos. HB - \$20; SB - 11
- Z105 Muir-Wood, H.M. & K.P. Oakley 1941. Upper Palaeozoic faunas of North Sikkim. Mem. Geol. Surv. India, Palaeontologia Indica, N.S. Vol. 31, Mem. No. 1, i-ii + 1-91, pls. 1-4. Cover paper worn and slightly foxed. Interior very clean with very minor tearing on bottom edge of one or two pages. Folio size - \$40
- Z109 Muller, A.H. 1963. Lehrbuch der Palaeozoologie. Band II, Invertebraten, Teil I Protozoa - Mollusca 1, G. Fischer Verlag, Jena, p. 1-XV + 1-575, 712 text figs. Library withdrawal, solid cloth binding - \$45
- R015 Nakano, M. 1958-1971. 17 separates - mostly on Trigonina. - \$25
- 2140 National Geographic 1973. Includes: Australia's great barrier reef. p.726-793 on mollusks, corals, and others, many color illustrations. - \$12
- 2400 Nautilus 1971-72. Volume 85, parts 1-4, 146 pages, many figures, photos and tables. 32 articles on mollusks including new *Conus*, new *Fasciolaria*, and land snail. Galapagos land snail, bivalve, reef mollusks of South Carolina, fossil mollusks, fluorescence, distribution and many other subjects. - \$10
- 2772 Nautilus, The Published by American Malacologists. The oldest molluscan quarterly still publishing in America. Individual volumes and numbers available. Send list of parts needed. Complete used sets are occasionally available. Approximate price - \$3000
- 7239 Neal, M.C. 1934. Hawaiian Helicinidae. Bernice P. Bishop Museum, Bull. 125, p. 1-102, figs. 1-117. Reprint 1976, softbound - \$20
- R054 Nebraska Geological Survey, 1932. Bull. 5, 2nd series, Brachiopoda of the Pennsylvania - \$100
- 2390 New York Shell Club Notes, Complete set - Nos. 1-263. Some numbers in photocopy. - \$350
- R041 Newberry & Meek Geological Survey of Ohio. Geology and Paleontology. Vol. I (1873), Vol. II (1875) - \$90
- R048 Newell 1942. Geological Survey of Kansas, Late Paleozoic Pelecypods: Mytilacea. - \$25
- 8794 Newell, N.D. & D.W. Boyd 1975. Parallel Evolution in Early Trigonian Bivalves. Bull. Amer. Mus. Nat. Hist., 154, Art 2:55-162, figs. 1-98, tpls. 1-31, cr4to - \$11
- 60R48 Newell, N.D. 1942. Late Paleozoic Pelecypods: Mytilacea. Univ. Kansas Publ., State Geol. Surv. Kansas 10(2):1-80, 15 pls., 200 x 255mm, soft cover. very good condition. - \$31
- 60237 Newman & Ross 1976. Revision of the Balanomorpha Barnacles: Including a Catalog of the Species. Memoir 9, San Diego Soc. Nat. Hist. 108p. - \$26
- 2381 North Pacific Shells No. 07-Genus *Plicifusus* 29p., 12pls. - \$11
- 2414 North Pacific Shells No. 08 - Genus *Colus*. 26p., 13pls. - \$10
- 2465 North Pacific Shells No. 12. Genus *Clinopogma*. 49 p.; 18 pls. - \$21
- 2600 North Pacific Shells No. 14. 1984. Genus *Buccinum* Linnaeus, 1758. 64p., 21pls., figs. - \$24
- 2978 North Pacific Shells No. 15 Genus *Trophon* Montfort, 1810 (s.l.). 36p., 14 pls. - \$20
- 2374 North Pacific Shells, Series of separates produced by S. Kosuge (Institute of Malacology of Tokyo), each on a specific group with excellent black and white photographs. Japanese and English descriptions. Save over \$20 on the separate prices - set of 16 papers published to date - \$130
- 7160 Nybakken, J. Marine Biology An Ecological Approach. Harper & Row, Publ., Inc., 446 p., illus. Hardcover - \$32
- 2667 Occasional Papers on Mollusks Mus. Comp. Zool. Harvard, Individual numbers available, write with specific needs. Vol. 1(1)-2(30) (Nos. 18-21 in photocopy) - \$75
- 7138 Odum, E.P. 1971. Fundamentals of Ecology. 3rd ed. 574pp., illus. - \$12.50
- 2668 Of Sea & Shore Vol.1-13(2) all issues published, some RPT - \$125
- 7139 Oldroyd, I. 1924. The Marine Shells of the West Coast of North America. Vol. I. 247pp., 50pls. [original as issued, softbound, uncut] - \$45
- 7240 Oldroyd, I. Marine Shells of the West Coast of North America. In 4 hardbound volumes. 1530 pages, 165 pages halftone illus. - \$120
- R049 Olsson & Harbison 1953. Pliocene Mollusca of Southern Florida. Original copy perfect condition. - \$195
- 7395 Olsson, A.A. & Harbison, Pliocene Mollusca of Southern Florida. Reprint Hard library binding. - \$50
- 7252 Olsson, A.A. Neogene Molluscs from Northwestern Ecuador. Fully illustrated in halftones. 251 pages. paperbound - \$22
- 2049 Opisthobranch Newsletter I-XV Cloth bound in 3 volumes - \$200
- 2001 Opisthobranch Newsletter Vol. 1-15 single volumes each - \$17
- 2050 Opisthobranch Newsletter Volume 1-5, 6-10, 11-15 hardbound editions each - \$75
- R018 Osborn, H.F. 1910. The Age of Mammals. - \$35
- 7620 Ostergaard, J.M. 1928. Fossil Marine Mollusks of Oahu. Bernice P. Bishop Museum, Bull. 51, p. 1-32, pls. 1-2. - \$16
- 60232 P., H.F. 1866. Frank's Search for Sea Shells. American Tract Soc., Boston 352p., color frontispiece, 4 pls., 105 x 160mm blue cloth binding, good condition, small tear edge of one page. - \$40
- 8701 Papers in Marine Biology and Oceanography, 1955. Deep-Sea Research Supplement to Volume 3. Pergamon Press, New York, 498p., many ill., HB, dust cover torn, contents good - \$40
- 7680 Parenzan Carta d'Identita delle Conchiglie del Mediterraneo. Vol.2- Bivalve Part 1. Hardbound - \$30
- 7677 Parenzan Carta d'Identita delle Conchiglie del Mediterraneo. Vol.1-Gastropods. Italian text; Latin names. Halftone illus. Hardbound - \$30
7678. Parenzan Carta d'Identita delle Conchiglie del Mediterraneo. Volume 1. Gastropods; Volume 2. Bivalves part 1; Volume 2. Bivalves part 2. Italian; Latin names; halftones. Softbound set - \$60
- 3864 Parker, H.S., Exploring the Oceans. An Introduction for the Traveler and Amateur Naturalist. Spectrum Books, 354p., many photos and line drawings. - \$16
- 1980 Parmalee, P. 1967. The Freshwater Mussels of Illinois. Ill. State Mus., p. 1-108, pls. 1-35 + 1 col. pl. A few notations inside, otherwise fine - \$20
- 7242 Pechar, P., C. Prior & B. Parkinson Mitre Shells of the Pacific & Indian Ocean. More than 120 pages with over 680 specimens of 270 species and forms are pictured in 56 full color plates. Hardbound - \$29
- 8807 Perrier, R. 1930. La Faune de la France. Fasc. 9. Bryozoaires, Brachiopodes Mollusques
- Protocordes (Amphioxus, Tunicers). Librairie Delagrave, Paris, VIII + 172p., illus., 200x120mm, clothbound, 1964 Reprint - \$15
- 7882 Pilsbry & Olsson, A.A. 1941. A Pliocene fauna from Western Ecuador. p. 1-79, pls. 1-19. Uncut. - \$20
- 7151 Pilsbry 1939-1948. Land Mollusca of North America. Vol. 1, Part 1& 2; Vol. 2, part 1 & 2 As issued. 1113p., 585 figs. Original uncut set. - \$255
- 7879 Pilsbry, H.A. & A.A. Olsson 1952. Vitrinellidae of the Panamic Province: II. p. 35-88, 12 pls. Uncut. - \$15
- 3013 Pilsbry, H.A. 1919. Review of the land mollusks of the Belgian Congo Bull. AMNH 40(1):1-370. - \$40
- 7146 Pilsbry, H.A. 1939-1948. Land Mollusca of North America. Nicely bound in 4 green cloth bindings. - \$295
- 7951 Pilsbry, H.A. 1953. Inland Mollusca of Northern Mexico. II. Urocoptidae, Pupillidae etc. p.133-167, 8 pls. Uncut - \$10
- 1996 Platt, R. 1949. Shells take you over World Horizons. National Geographic, 96(1):33-84, 41 col. ill., 16 b/w ill. - \$20
- 7501 Ponder, W.F. Revision of Recent Xenophoridae of the World and of the Australian Fossil Species. Paperbound 126 p., halftones & line drawings - \$30
- 60223 Powell, A.W.B. 1960. Antarctic and Subantarctic Mollusca. Rec. Auck. Inst. Mus. 5(3-4):117-188, uncut - \$11
- 7174 Powell, A.W.B. 1966. Molluscan Families Speightidae and Turridae. 184 pages, 23 plates. - \$24
- 7328 Powell, A.W.B. Shells of New Zealand, 5th Ed. 154 pages, 2 color plates, 43 halftone plates, plus many line drawings. Hardbound - \$15
- 7259 Pownell, G. New Zealand Shells and Shellfish. Illustrated in full color. Hardbound book. 87 pages. - \$14
- 2530 Proceedings of the 2nd Int. Symp. on Coral Reefs. 1974. 2 vol. 630pp. & 753pp., illus. Softbound - \$95
- 2540 Proceedings, Annual Meeting of the Natural Science Foundation. Third and Fourth meetings - \$10
- R021 Ransom, J.E. 1964. Fossils in America. - \$35
- Z103 Reed, F.R. 1930. A new Permian-Carboniferous fauna from Brazil. Monographias do Servico Geologico e Mineralogico do Brasil, Vol. 10, 52 pages, 8 halftone plates (colotype). Softbound, English & Spanish parallel text. Some staining, not affecting plates - \$80
- 7160 Reeve, L. 1851. Conchologica Iconica *Pterocera*. - \$60
- 7161 Reeve, L. 1854-55. Monograph of the Genus *Patella*. [Text complete + pls. 1-5, 14, 21-22, 28, 36, 41-42. Several plates missing] - \$40
- R012 Rehder, et al 1942. U.S.G.S. Prof. Paper 196D, Deep Sea Cores, Mollusca. - \$60
- R055 Report of the New Jersey State Museum, 1911. Crustacea of New Jersey. Cloth bound volume - \$45
- 8813 Report on the Pearl Oyster Banks [Ceylon] 1867-1925. 31 reports issued between 1867 and 1925 comprising over 400 pages 340x210mm. These reports detail the entire recorded history of the pearl fishery with the written history starting about 1000 A.D. Includes maps, some in color, diagrams and tables, along with text describing the specific banks and quantities of oysters found along with sizes. Includes: Hornell, James, 1905. Report to the Government of Madras on the Indian Pearl Fisheries in the Gulf of Mannar. 107p., fold-out maps, figs. which is in boards. The remainder of the reports are as issued separately, worn and some waterstaining. The entire text and plates seem in good condition - \$310
- R037 Richards 1943. Acad. Nat. Sciences Vol. 95. Fauna of Raritan Formation of New Jersey. - \$12
- R005 Richards 1958. The Cretaceous Fossils of New Jersey, Part I. & Part II Bound in two volumes, cloth - \$65
- R031 Richards 1962. Trans. American Philosophical Soc. Studies on Marine Pleistocene. - \$45
- R027 Richards, H.G. 1956. Geology of the Delaware Valley. - \$20
- 0113 Ricketts, E. & Calvin Between Pacific Tides. 4th Ed. 22 full color pages. Total of 614 pages, large hardbound, Many charts, graphs and tables. Hardbound - \$20
- 60204 Ricketts, E.F., J. Calvin, J. Hedgpeth & D.W. Phillips 1986. Between Pacific Tides. 5th edition. Stanford University Press, Stanford, CA 94305, xxvi + 652p., 364 figs. & halftones. Hardbound with dust jacket. ISBN 0-8047-1229-8, - \$29.50
- 8518 Rios, E.C. 1975. Brazilian Marine Mollusks Iconography. Fundacao Univ. do Rio Grande, 331p., 91 halftone plates, 1328 figs. [range, locality & size records] softbound book. Includes errata sheet. - \$45
- 8811 Robert, P.A. 1945. Wonders of the Sea: Shells. 15 Colour Plates Painted from Nature. Introduction by Julian Huxley. Introductory text by Arnold Masarey. 4to, 12p. + Plates. - \$26
- 7428 Robin, Petron & Rives Living Corals - New Caledonia, Tahiti, Reunion, and the Caribbean. 143 pages. 150 photos - \$17
- 7409 Rockel, D., E. Rolan & A. Monteiro Cone Shells from Cape Verde Islands - a Difficult Puzzle. Descriptions are excellent with many pictures and line drawings. Also 8 excellent color plates. - \$14
- 7165 Roedel, P.M. 1948. Common Marine Fishes of California. Fish Bull. 68, 150pp, illus. [back cover separated] - \$15
- 7166 Rogers, J.E. 1931. The Shell Book. 485pp., Original clothbound edition, illus. - \$20
- 7001 Rolan Mosquera, Emilio. 1983. Moluscos de la Ria de Vigo. Santiago de Compostela, Spain, 283 p., index; 435 species illustrated in halftones; maps. All are figured with good black & white photos with notes on habitat, synonymy and bibliography. Large type in Spanish. Locality maps - \$50
- R020 Romer, A.S. 1966. Vertebrate paleontology, 3rd ed. - \$25
- 2956 Rosiniana, Published by the malacological society of New Caledonia. (single issues, volumes, and subscriptions (\$20/yr airmail). Complete sets available, part in photocopy only. Write for parts wanted.
- 8812 Royal Commission on Sewage Disposal 1904. Fourth Report of the Commissioners Appointed in 1898 to Inquire and Report what Methods of Treating and Disposing of Sewage (Including any Liquid from any Factory or Manufacturing Process) May Properly be Adopted. Pollution of Tidal Waters with Special Reference to Contamination of Shell-Fish. Vol. I. - Report, i-xliv. Vol. II. - Minutes of Evidence, 1-283, tpls. 1-7, many diagrams and fold-out maps, 2 halftones. Vol. III. - Reports by Dr. Houston on Bacteriological Investigations. Correspondence with Foreign Countries. i-viii + 1-316, many tables, maps and diagrams including fold-outs in color and black and white, 325x205mm, leather & cloth binding with covers separated, waterstaining, affecting some of text. Includes mapping and discussion of all of Britain's mussel and cockle fisheries at the turn of the century - \$125
- 7211 Russell, H.D. Index Nudibranchia. Over 2000 citations. Subject index of 200 categories 141 pages. - \$20
- 7167 Russell-Hunter, W.D. 1969. A Biology of higher invertebrates. 224 p., illus. SB - \$10
- 1965 Rymer Jones, T. 17845. The Natural History of Animals being the substance of three courses of lectures delivered before the Royal Institution of Great Britain. 2 vols. bound together in green cloth. Vol. 1 362p., 105 illus. marine & freshwater invertebrates (no mollusks). Vol. 2 395p., 104 engravings, mainly insects. Good condition. - \$75
- 0686 Sabelli, B. & H.S. Feinberg Simon & Schuster's Guide to Shells. A very complete and extensive guide, fully color illustrated with hundreds of finest quality color photos. Has all necessary information on size, distribution, appearance and other data. An exceptionally fine book. Hardbound 686H - \$23; Softbound 686S - \$10
- 8747 Safer, J.F. & F.M. Gill 1982. Spirals from the sea. An anthropological look at shells. Clarkson N. Potter, Inc, New York, 192p., 60+ col. photos, 45 halftones. Hardbound 9.5x10.25" format - \$35
- 7321 Saul, M. Shells, an Illustrated Guide to a Timeless and Fascinating World. Fully illustrated in color and halftones. 192 pages. Hardcover - \$10

- 6Z126 Sayn, G. 1901. *Les Ammonites Pyritiques des Marnes Valanginiennes du sud-est de la France*. Mem. Soc. Geol. France, Paleontol., Mem. (23):1-27, pls. 1-2, figs. 1-15. 240 x 310mm, cloth & boards, minor wear but very serviceable. - \$25
- 1946 Scherren, H. 1903. Popular Natural History of Lower Animals (Invertebrates). 288p., 168 b/w illustrations. Leather spine, worn cloth cover. Good general coverage of mollusca and other marine invertebrates. - \$29
- 1957 Scherren, H. 1906. Ponds and Rock Pools. 208p., 66 b/w illus. Subtitle: With hints on collecting for and management of the micro aquarium. Excellent condition. Cloth binding. - \$21
- R017 Scott, W.B. 1913. A History of Land Mammals in the Western Hemisphere. - \$35
- R024 Scott, W.B. 1932. An Introduction to Geology, Vol. I Physical Geology. and Vol. II. Historical Geology. - \$65
- 7171 Setchell, W.A. & N.L. Gardner 1924. New Marine Algae from the Gulf of California. pp. 695-949, pls. 12-88, map. [covers loose] - \$40
- 2814 Shell Collector, The - 3 issue set - \$10
- 1974 Shell Desk Diary, Numerous years available, specify which you want. - \$12 ea
- 2016 Shells and Sea Life Vol. 16(1984) in 12 numbers as issued - \$30
- 2046 Shells and Sea Life Vol.16 (1984) HB 250 p. - \$40
- 7178 Sheppard, C.R.C. A Natural History of the Coral Reef. Blanford Press, 152 pages, black and white and color photographs. Hardcover - \$18
- R022 Shimer, H.W. 1948. An Introduction to the Study of Fossils. (Plants and Animals), Rev. ed. xviii + 496p., 207 ill., glossary. Clean clothbound copy. Some wear on spine and knocked corners. - \$20
- 6172 Shrock, R. & W. Twenhofel 1953. Principles of Invert. Paleontol. 2nd Ed. SB 816pp., illus. - \$15
- 7175 Simpson, G.T. 1900. Synopsis of the naiades, or pearly fresh-water mussels. pp. 501-1044 FA. - \$54
- 7174 Skogsberg, T. 1928. Studies on marine ostracods. Part II. pp. 1-155, pls. 1-6. - \$25
- 7170 Smith, B.J. & R.C. Kersaw Field Guide to Non-Marine Molluscs of South Eastern Australia. Illustrated in halftones, hand drawings and sketches. Plastic coated paperback, 285 pages. - \$15
- 7156 Smith, D. & M. Westlake The Diver's Guide to the Philippines. Unicorn Books Limited, 128 p. Hardcover - \$16
- 7374 Smith, M. Review of the Volutidae. 127 pages. Illustrated in halftones with 26 full page plates. Hardcover - \$15
- B001 Smithsonian Scientific Series 1929. Smithsonian Institution. Twelve volume set by various authors. Over 1800 illustrations. The series "... is the first official record of the amazing information assembled by the Smithsonian Institution from its storehouse of priceless treasures." Excellent paper and cloth bindings. - \$480
- 1972 Smithsonian Scientific Series, Vol. 10, Shelled Creatures and Geol. History. Hardcover. - \$30
- 7475 Smythe, K. Seashells of the Arabian Gulf. Includes 20 plates in both black & white and color. Hardcover, 123 pages. - \$31
- 1954 Solem, A. & A.C. van Bruggen [eds.] 1984. World-Wide Snails. Biogeographical studies on non-marine Mollusca. E.J. Brill, Leiden, Netherlands, 289 pages, Soft-Bound - \$48
- 7483 Solem, A. 1976. Endodontid Land Snails from Pacific Islands. Part 1. Endodontidae. 508 pages, 208 illustrations, 114 tables. Published 1976. - \$64
- 7484 Solem, A. 1983. Endodontid Land Snails from Pacific Islands. Part 2. Punctidae and Charopidae. 336 pages, 143 illustrations and 76 tables. - \$64
- 2512 Soosiana, Published in Hungary by Dr. A. Richnovsky, one or two volumes per year, 11x8" format, in Hungarian, with short English summaries for articles. Primary subject matter land snails. We have several volumes available including vol. 13 (1985) which sell for \$30 per volume.
- 1960 Sowerby, A. de Carle 1923. A Naturalist's Holiday by the Sea. "Being a collection of essays on the marine littoral and shore-land life of the Cornish Peninsula including short accounts of the mineralogy and geology as well as some of the birds of the interior." 262p., 21 b/w illus., 21 diagrams. Good cloth binding. - \$30
- 7554 Sowerby, G.B. Monograph of the Genera *Fissurella*, *Fissurellidae*, *Clypidella*, *Macrochisma*, and *Pupillaea*. 9 full color plates. Bound in heavy paper cover, 33 pages. Excellent reproduction. - \$10
- 7551 Sowerby, G.B. Monograph of the Genera *Spondylium*, *Plicatula* and *Pedum*. This covers the above families. It is well done and beautifully reproduced. It has 21 pages and 8 full color plates. 65 *Spondylium* are pictured, 23 *Plicatula*, and 4 *Pedum*. Reprint - \$10
- 7552 Sowerby, G.B. Monograph of the Genus *Columbella*. 37 pages with 185 full color illustrations on 5 plates. Reprint - \$10
- 7550 Sowerby, G.B. Monograph of the Genus *Marginella*. 33 pages of descriptions, 5 full pages of color plates. Reprint - \$11
- 7553 Sowerby, G.B. Monograph of the Genus *Murex*. (1983 reprint) 71 pages, 264 color illustrations on 24 plates. - \$20
- 7555 Sowerby, G.B. Monograph of the Genus *Naica*. 14 pages of notes added by Michael Dixon. 117 pages + 9 color plates. - \$10
- 7277 Spry Sea Shells of Dar-Es-Salaam Part 1, Gastropoda. East Africa, Indian Ocean. Hand colored drawings & halftones. Softbound - \$15
- 7278 Spry Sea Shells of Dar-Es-Salaam Part 2, Pelecypoda. 41 pages. East Africa, Indian Ocean. Hand colored drawings & halftones. Softbound - \$15
- 7176 Steinbacher, J. 1961. Gesamt-Verzeichnis der Senckenberg-Schriften. Achtjahres-Verzeichnis fur 1953 - 1960. 142 p. - \$20
- 7590 Steinbacher, J. 1973. Gesamt-Verzeichnis der Senckenberg-Schriften. Sechjahres-Verzeichnis fur 1967-1972. 142pp. - \$20
- 60229 Step, E. 1901. Shell Life. An Introduction to the British Mollusca. Frederick Warne & Co., London, 414p., 600+ illustrations, apparently 1st ed., 125 x 190mm red cloth cover, some wear but good condition. - \$50
- R039 Stephenson 1936. USDI Prof. Paper 186A, New Upper Cretaceous Ostreidae-Gulf Region. - \$45
- Z112 Stephenson, L.W. 1914. Cretaceous Deposits of the Eastern Gulf Region and Species of *Exogyra* from the Eastern Gulf Region and the Carolinas. USGS Prof. Paper 81, 77p., 21 pls., fold out tbs, maps in pocket in back. Solid cloth binding in very good condition. 8vo. Fine colored map. - \$40
- 3067 Stephenson, L.W. 1922. Some upper Cretaceous shells of the Rudistid Group from Tamaulipas, Mexico. Proc. USNM, 61(1):1-28, pls. 1-15. - \$14
- 6184 Stewart, R.B. 1930. Gabb's Calif. Cretaceous & Tertiary Type Lamellibranchs. Acad. Nat. Sci. Philadelphia, Spec. Pub. #3, 314pp., 17pls. Leather binding, split, text average - \$35
- 7185 Storer, T.I. 1951. General Zoology. 2nd Ed. HB - \$10.
- Z113 Stoyanow, A. 1916. On some Permian Brachiopoda of Armenia. 96p., 6 pls. 12.5" x 9", English & Cyrillic text. Good cloth binding with some wear, some pages repaired with no interference with text. - \$100
- 7157 Swainson, W. Exotic Conchology. reprint of the 1834 original. 48 pages of wash color plates of exceptional quality. Hardcover - \$20
- 2600 Tabulata, The Vol. 1-7 + suppl. & index, some photocopy. Published by the Santa Barbara Malacological Society. Many useful articles, primarily on Eastern Pacific mollusks. - \$75; Individual numbers \$4 ea; individual volumes \$15 ea
- 6187 Taylor, D.W. 1975. Index and bibliography of late Cenozoic freshwater Mollusca of western North America. Univ. Michigan Mus. Paleo., 384 p. - \$25
- 7359 Taylor, D.W. West American Fresh Water Mollusca I - Bibliography of the Pleistocene and Recent Species. Memoir #4 73 pages. Softbound - \$11
- 7124 Taylor, H. The Sport Diving Catalog. St. Martin's Press, 288 pages, b/w illustrations. Softcover - \$13
- 7336 Taylor, Kennedy & Hall Shell Structure and Mineralogy of the Bivalvia. 29 pages of halftone plate illustrations, 125 text pages. Softbound - \$30
- 7119 Tebble, N. 1976. British Bivalve Seashells, 2nd ed. Brit. Mus. (NH), 212 pages, 12 color plates, hundreds of line drawings. Softbound, 5" x 7" format - \$10
- R001 Thom, E.M., R.R. King et al. 1944-1961. Bibliography of North American Geology, 1929-1959. USGS, Geological Survey Bulletins (9 different), 8514 p. in 11 volumes. Paper covers, good to excellent condition. Shipping weight 23 lbs - \$220
- 7784 Thompson, T.E. & G.H. Brown 1984. Biology of Opisthobranch Molluscs Volume II. The Ray Society, 229 p.; 12 map pages; 40 figs. + unnumbered figs.; 41 pls. (\$5 in color). - \$60
- 7783 Thompson, T.E. 1976. Biology of Opisthobranch Molluscs. Volume I. The Ray Society, 207p., 21 pls., figs. Hardcover - \$45
- 7610 Thompson, T.E., Nudibranchs. TFH color publication. Softbound - \$20
- 7191 Tinker, S.W. 1965. Pacific Crustacea. 134pp., illus. HB - \$15
- R011 Tressler 1941. U.S.G.S. Prof. Paper 196C, Deep Sea Cores, Ostracoda. - \$40
- 8808 Tryon, G.W. 1862. A Monograph of the Order Pholadacea, and other Papers. Contributions to Conchology - Vol. 2. Merrihue & Thompson, Philadelphia, med8vo, 127p., 1 pl., text figs., no covers, a few pages slightly browned, otherwise good. - \$50
- 1951 Turner, R.D. 1966. A Survey and Illustrated Catalog of the Terebrinidae (Mollusca: Bivalvia). Mus. Comp. Zool., 265 pages. HB - \$15
- 3063 Ulrich & Bassler 1931. Cambrian bivalved crustacea of the order Conchostraca. Proc. USNM, 78(4):1-130, pls. 1-10. - \$18
- 7198 Van Nostrand's Standard Catalog of Shells. 1st ed. SB - \$10
- 7199 Van Nostrand's Standard Catalog of Shells. 2nd ed. SB - \$10
- 2658 Veliger, The 12-18 (1969-76) Seven original volumes in parts as issued - \$280
- 2702 Veliger, The 7-12 Microfiche. Price per volume - \$15
- 2833 Veliger, The, volumes 1-12. First 12 volumes on 24x reduction Microfiche - \$115
- 2696 Veliger, The, volumes 1-6. First 6 volumes on 24x reduction Microfiche. - \$60
- 3002 Vernon, R.O. 1942. Geology of Holmes and Washington Counties, Florida. Florida Geol. Survey, Geol. Bull. (21):1-161, halftones, maps, tbs. [Good condition, cover loose] paperback - \$16
- 8704 Verrill, A.H., 1950. Shell Collector's Handbook. G.P. Putnam's Sons, New York, xv + 228p., 16 halftone pls., 89 figs., Cloth binding, slight wear - \$15
- 7511 Vokes, E.H. & H.E. Vokes Shallow Water Marine Mollusca, Yucatan Peninsula, Mexico. 183 page Tulane University. 17 ecological distribution charts and 50 full-page black and white plates 769 species. Softcover - \$30
- 8520 Vokes, E.H. 1971. Catalogue of the genus *Murex* Linne (Mollusca: Gastropoda); Muricinae, Ocenebrinae. Bull. Amer. Paleontol., 61(268):1-141. SB - \$27
- 6383 Vokes, H.E. 1939. Molluscan Faunas of the Domingine and Arroyo Honda Formations of the California Eocene. Ann. NY Acad.Sci., 38:1-246, pls 1-22 SB - \$25
- 7393 Vokes, H.E. Genera of the Bivalvia. A systematic and bibliographic catalog of the bivalvia. 305 pages, indexed, no illustrations. SB - \$30
- Z108 Wachsmuth, C. & F. Springer, 1897. The North American Crinoidea Cameraata. Memoirs of the Museum of Comparative Zoology at Harvard College, Volume 20. Volume 1, pages 1-369, folio size, paper binding coming apart. Fraying at edges of pages not affecting any of text or standard margins. No plates. - \$56
- R034 Wade USGS Prof. Paper 137. Fauna of Ripley Formation Coon Creek, Tennessee. - \$30
- 7955 Walsby, J. & J. Morton Marine Molluscs. Part 1. Chitons, Limpets & Topshells & Pulmonates. Univ. of Auckland, Leigh Marine Laboratory, p. 1-89, illus. Softbound - \$10
- 7226 Weaver, C.S. & J. duPont Living Volutes. Fully illustrated in exceptional color prints. Best library binding. Hardcover - \$45
- 7204 Webb, W.F. A catalog of recent mollusca from all parts of the world. 4th ed. 157pp., 1225 illus. - \$12
- 7202 Webb, W.F. A catalogue of recent mollusca and other marine invertebrates from all parts of the world. 1st edition. [tape on binding] 148p., - \$15
- 7208 Welch 1938. Distribution & variation *Achatinella mustelina* Waianae Mountains, Oahu. Bishop Mus., Bull. 152, p.1-164, pls 1-13 RPT 1971 SB - \$35
- 2809 Western Society of Malacologists Annual Reports The Echo. Vol. 1-17 (all published through 1985) - \$110. Individual numbers are also available, send list of issues needed.
- R035 Whitfield Geological Survey of New Jersey. Paleontology of Cretaceous and Tertiary. Vol. 1 (1886) & Vol. II (1892). (all mollusca). Fair condition, Hardcover. - \$135
- 3050 Wiedey 1928. Notes Vaqueros & Tamlor formation California Miocene with descriptions of new species. Trans. SDSNH, 5(10):95-182, pls. 9-21. - \$15
- Z102 Wiedmann, J. 1960. Zur systematik Jungmesozoischer Nautiliden unter besonderer Berücksichtigung der iberischen Nautilinae d'Orb. Palaeontographica, 115, A:144-206, pls. 17-27, 26 text figs. Soft cover worn on spine, otherwise good condition. - \$20
- 6221 Wiesbord Late Cenozoic Corals of South Florida. 450 pages, 32 plates. - \$20
- 7773 Willan, R.C. & J. Morton 1984. Marine Molluscs. Part 2 Opisthobranchia, 106 p., many figs. Softcover - \$13
- 7853 Willan, R.C. & N. Coleman Nudibranchs of Australasia. ca. 160 color photos. Softcover - \$28
- 8219 Wilson, B.R. & K. Gillett Australian Shells. Hardcover with slip case - \$35
- 7886 Wilson, B.R. & S.E. Stevenson 1977. Cardidae of Western Australia. Western Australian Museum, Special Publ. No. 9, 114 pages, halftones, maps, tables, line drawings, Softcover - \$10
- 7109 Winlund, E. et. al. ChartGuide Mexico West. 76 pages (14"x20") spiral bound. San Diego, California to Guatemala including the Sea of Cortez and the offshore islands in the Sea. - \$45
- R008 Winters 1963. Geol. Soc. Amer. - Memoir 89. Supal Formation, Arizona - \$20
- 1958 Wood, Rev. T. The Sea Shore shown to the Children by Lane Harvey Kelmén. Described by author. 146p., 48 color pictures. Cloth binding. Includes color plate of a *Lima* in sea weed. Fair condition. - \$15
- 8815 Woodward, S.P. 1880. A Manual of the Mollusca being a Treatise on Recent and Fossil Shells. 4th ed. Crosby Lockwood and Co., London, 543p., pls. 1-23, 270 text-figs and a fold-out map. Also: Tate, R. - Appendix to the Manual of Mollusca. 86p., 26 figs. and 48 pages of book catalogs. Green cloth binding sm8vo. Good condition with some wear, working copy - \$60
- 7785 Wurtz, C.B. 1955. The American Camaenidae (Mollusca: Pulmonata). p. 99-143, pls. 1-19. - \$14
- 8804 Yochelson, E.L. 1960. Permian Gastropoda of the Southwestern United States. 3. Bellerophonacea and Patellacea. Bull. Amer. Mus. Nat. Hist., 119, Art. 4:205-294, pls. 46-57, figs. 1-5, tbs. 1-25, cr4to - \$12
- 8817 Yonge, C.M. & T.E. Thompson 1976. Living Marine Molluscs. Collins, London, 288p., figs. 1-162, pls. 1-16 (several in color). Cloth binding 216x132mm, d/w, as new, 1 corner knocked slightly - \$30
- 1968 Yonge, C.M. 1949. The Sea Shore. - \$40
- 1946 Zahl, P.A. 1969. The magic lure of sea shells. National Geographic, 135(3):386-429, 41 col. ill. - \$16
- 7262 Zeigler, R.F. & H.C. Porreca Olive Shells of the World. 96 pages, 13 full color plates, numerous halftone photos. First quality hardbound. - \$16
- 7950 Zeiller, W. Tropical Marine Fishes. 275 species in full color showing the fine details. Covers rare as well as common varieties. - \$30

Mollusks on Stamps

Tom Rice, P.O. Box 219, Port Gamble, WA 98364

To commemorate the 125th Anniversary of their first stamps, the Bahamas issue, on February 22, 1984, two shells-on-stamps issues, the 5-cent showing the 1861 4-penny stamp and the \$1, the 1849 1d stamp. Both these old stamps have a small conch in the border.

Greenland, on March 19, 1984, issued a set of stamps, one of which -- the 2.70 kroner -- shows pearls and whales.

The South American country of Surinam issued a set of shell stamps on February 22, 1984. Included are *Arca zebra* on the 40-cent stamp, *Trachycardium egmontianum* on the 65-cent stamp, *Tellina radiata* on the 70-cent issue and *Vermicularia knorri* on the 80-cent stamp.

The Faroe Islands, in Europe, issued a set of stamps January 30, 1984. The 300 ore stamp features a shield with crossed keys above St. Jacob with a pilgrim's staff and hat, on the hat is a *Pecten jacobaeus*, the Saint's symbol.

Djibouti continues to issue stamps with mollusks as their theme. A set issued on December 20, 1983, shows *Marginella obtusa* on the 15fr, *Conus jickelli* on the 30fr, *Cypraea macandrewi* on the 55fr, *Conus cuvieri* on the 80fr and *Turbo petholatus* on the 100fr. All of the photographs were taken by our subscriber, Henry Roussy. He has recently moved back to France and will be moving again soon, to Thailand

MARGINELLA OBTUSA (SOWERBY 1846) :

Pratiquement seule représentante de cette famille en Mer Rouge. Couleurs variables du vert clair au brun, lignes longitudinales en pointillés et deux bandes de couleur plus soutenue. Trouvée dans sable ou vase entre 20/80 cm.

MARGINELLA OBTUSA (SOWERBY 1846)

Practically the only representative of this family in the Red Sea. Variable colouring from light green to brown with longitudinal dotted lines and two bands of darker colour. Found in sand or mud at 20/80 cm.



CONUS JICKELLI (WEINKAUFF 1873) :

Zone d'habitation Est Océan Indien, mais plus particulièrement Mer Rouge, depuis DAHALAC au Golfe d'ADEN. Léger, de 30/40 mm, conique, avec spire pointue. Blanc parfait, ou crème très clair. Lignes pointillées avec tâches brunes parfois inexistantes.

CONUS JICKELLI (WEINKAUFF 1873) :

Zone of habitation, East of Indian Ocean but more particularly the Red Sea from DAHALAC to the GULF OF ADEN. Light, 30/40 mm. Conical with a pointed spire. Perfect white or very light cream. Dotted lines of brown markings are sometimes absent.



CYPRAEA MACANDREWII (SOWERBY 1870) :

9 à 25 mm, sans parenté reconnue, spécifiquement de Mer Rouge. Cylindrique, avec points marrons et plus petits blancs sur le dos. Dents extérieures soulignées de marron, dents de lèvre intérieure pratiquement non apparentes. Assez rare.

CYPRAEA MACANDREWII (SOWERBY 1870) :

9 to 25 mm. No known relatives. Specific to the Red Sea. Cylindrical with brown spots and smaller white spots on the back. Exterior teeth underlined in brown. Teeth on inner lip practically undetectable. Quite rare.



CONUS CUVIERI (CROSSE 1858) :

Cone "roulé" très léger et fin, de 25/45 mm. Mélange de couleurs nébuleuses de blanc à marron bleutés. Ouverture très large. En eau peu profonde, mais seulement Mer rouge. Peu commun.

CONUS CUVIERI (CROSSE 1858) :

A very light and delicate rounded cone of 25/45 mm. A mixture of cloudy colours from white to bluish brown. Very wide aperture. Shallow water, in the Red Sea only. Uncommon.

TURBO PETHOLATUS (LINNE 1758) :

Commun dans Pacifique et Océan Indien. Reste de taille moyenne en Mer Rouge (30/50 mm). Généralement brun, vert foncé avec lignes spirales sombres et marques blanches. Assez brillant, intérieur nacré. Opercule "OEIL DE TIGRE".

TURBO PETHOLATUS (LINNAEUS 1758) :

Common in the Pacific and Indian Oceans. Reaches only medium size in the Red Sea (30/50 mm). Generally brown or dark green with spiral lines of dark and white markings. Quite shiny, pearly interior. "TIGER'S EYE" operculum.



A second set of Djibouti stamps, issued July 15, 1985, shows *Cypraea nebrites* on the 10fr, *Cypraea turdus* on the 15fr, *Conus acuminatus* on the 30fr, *Cypraea camelopardalis* on the 40fr, and *Conus terebra* on the 55fr. There are also color post cards with each of the shells.

CYPRAEA NEBRITES (MELVILLE 1888)

Plage de Dorale - Commune - Base crème avec lignes des dents labiales brun rouge. Tâches brunes sur chaque côté dorsal. D. 30/35 mm.

CYPRAEA NEBRITES (MELVILLE 1888)

Dorale beach - common species - Cream base with lines of fangs of labial form, coloured with reddish brown. Brown spots on each dorsal side. D. 30/35 mm.



CYPRAEA TURDUS (LAMARCK 1810)

Ile de Maskali - Assez commune - Base blanche avec dents très marquées. Dos déprimé fond vert clair avec nombreuses tâches vert olive et brun. D. 20/30mm.

CYPRAEA TURDUS (LAMARCK 1810)

Island of Maskali - rather common - White base with very apparent fangs. Low back. Background light green along with a lot of olive green and and brown spots. D. 20/30 mm.



CONUS ACUMINATUS (AWASS 1792)

Plage de Dorale - Assez commun dans cette zone - Spire très régulière. Bande claire sur fond noir avec petits triangles blancs limités par ligne marron clair. D. 30/50 mm.

CONUS ACUMINATUS (AWASS 1792)

Dorale beach - rather common in this area - Very regular whorl. Clear stripe on black background with small white triangles limited by light brown line. D. 30/50 mm.



CYPRAEA CAMELOPARDALIS (PERRY 1811)

Obock - Relativement rare - Couleur blanc crème avec points blancs. Dorsalement très souvent striée par croissance irrégulière. D. 40/60 mm.

CYPRAEA CAMELOPARDALIS (PERRY 1811)

Obock - rather rare - Colour cream white with white spots. Back very often streaked due to irregular growing. D. 40/60 mm.



CONUS TEREBRA (BORN 1780)

Plage Arta - Commune - Forme allongée, fond pâle avec deux bandes. Couleur soit bleutée surtout jeune, soit jaune pâle. Periostracum toujours important. D. 50/70 mm.

CONUS TEREBRA (BORN 1780)

Arta beach - common species - Oblong form, inside pale with two stripes. Colour either bluish, when young, either pale yellow. Periostracum always important. D. 50/70 mm.

West Africa's Cape Verde Islands issued, on November 30, 1983, a shell stamp set featuring *Conus alteralbus* on the 50 centavos, *Conus decoratus* on the 1 escudo, *Conus salreiensis* on the 3 escudo, *Conus verdensis* on the 10 escudo and *Conus coneolus* on the 50 escudo issue.

Belize, in Central America, issued a set of marine life stamps on February 27, 1984. One mollusk, the Common Lettuce Slug, *Tradachia crispata*, appears on the \$2 issue of the 16 stamp set. The 6-cent stamp shows the hermit crab, *Dardanus venosus*, in a dead *Cymatium* sp. shell. Other stamps in the set show corals, sponges, crabs and fish.

Information taken from:

Belize Philatelic Buresu
Office des Postes et Telecommunications,
Djibouti
Inter-Governmental Philatelic Corporation
Linn's Stamp News

ADD A NEW DIMENSION TO YOUR HOBBY

COLLECT SEASHELLS ON STAMPS!

Write for FREE Pricelists
Westminster Stamp Gallery, Ltd.
P.O. Box 456, Foxboro, MA 02035

SHELLS AND SEA LIFE ON STAMPS

- *Astonishing variety
- *Superb examples of species
- *Colorful shells on stamps give you a new dimension to your collection.

Write for approvals. Give Common name, Order, Family, PHILATELIC FINDS, P.O. BOX 4475, Ann Arbor, MI 48106



Squid

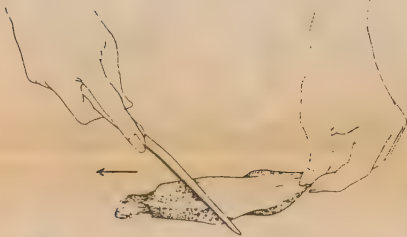
Cleaning Squid



1 Cut off the tentacles just above the eye. Save them.



2 Squeeze out the beak, the squid's mouth, which looks like a garbanzo bean. Discard it.



3 Holding the blade of a chef's knife almost flat, scrape along the body from the tail to the opening. Press down hard to squeeze out the



entrails, but be careful not to break the skin. Don't worry about removing the skin, which is edible.



4 With the point of the knife, stab the transparent quill which protrudes from the body and hold it fast. Pull the body away. The quill should remain under the knife.

my cats. (No cats? Just leave the stuff in a bowl by your back door. A cat will find it within five minutes.) It's easy to imagine throwing out the tentacles, but most recipes suggest chopping them and adding them to the sauce or stuffing. In small pieces they look edible.

Next, taking no chances that my squid might be tough, I pounded the meat with a wooden mallet.

Squid cooks very quickly, about a minute or two seems sufficient, it toughens with longer cooking, a fact easily demonstrated in my kitchen. Dipped in egg and bread crumbs and quickly sauteed, the squid meat was white and tender with a flavor resembling abalone, although not quite as delicate. From start to finish, the whole process took no longer than making a salad.

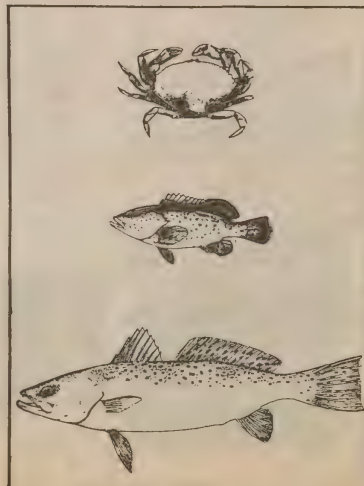
With its mild flavor, squid is versatile and can be added to sauces for pasta, stir fried (add at the last minute), stuffed or fried. Tackling squid made me feel brave and confident in my kitchen.

Cookbook Review

Looks Like a Great Book

The California Seafood Cookbook, Isaac Cronin, Jay Harlow and Paul Johnson, Aris Books.

Order No. 602-90 - \$12.95



by Bernice Kagan

Thumbing through *The California Seafood Cookbook*, is a frustrating treat on a day when winter weather prevents a selection of fresh fish. Subtitled, "A Cook's Guide to the Fish and Shellfish of California, the Pacific and Beyond," this well illustrated encyclopedia of seafood is divided into three sections:

Part I, a cook's introduction to seafood which covers purchasing fish, cleaning and cutting fish, cooking methods and explanations of special ingredients.

Part II, the body of the book is the wonderful alphabetical encyclopedia with recipes and cooking ideas for each fish.

Part III, a miscellany, contains a portrait of a fishmonger, information about wines, California oysters and the health risks of fish and seafood.

But of course, it is the recipes that shine. If most of your fish has come out of a can or the deep fryer, you can learn a lot from this book.

Fried Squid

from James Beard's *New Fish Cookery*

Cut the tentacles into small pieces, dust them with flour, and dip in beaten egg and crumbs or in batter. Fry quickly in oil heated to 375 degrees. Drain on absorbent paper and salt and pepper to taste. Serve with tartar sauce.

These are excellent as part of a "mixed fry" in the Italian style. Use a selection of small bits of fish, all fried and served with a highly seasoned sauce.

Fried Squid II

from James Beard's *New Fish Cookery*

Cut the tentacles into small pieces and dust well with flour. Saute in plenty of olive oil. It's wise to cover the pan. Salt and pepper to taste.

Squid



Squid with Black Rice

from
The California Seafood Cookbook
Serves 4

- 2 pounds squid, cleaned, bodies cut into rings, with tentacles and ink sacs reserved
- 2 Tablespoons olive oil
- ¼ cup chopped yellow onion
- 1 Tablespoon chopped garlic
- 1 cup white rice
- 1 teaspoon fresh thyme or oregano, or ¼ teaspoon dried
- 1 bay leaf
- Salt to taste
- 1 cup chicken stock and 1 cup water (if using canned chicken broth, decrease salt)

In a sieve placed over a bowl, crush the ink sacs with the back of a spoon. Pour the stock and water through the sieve to extract the rest of the ink.

In a medium-sized casserole, saute the onion and garlic in the olive oil over medium heat; do not brown. Add the rice, stir and saute a few minutes longer until the rice just begins to color. Add the seasonings and the stock. Cover, bring to a boil, reduce heat and simmer

for 15 minutes or until most of the liquid has been absorbed. Taste for seasoning. Add the squid and cook 5 minutes more or until squid is opaque and rice has absorbed the remaining liquid.

Serve from the casserole or transfer to a serving dish, arranging the squid on top. Serve with an assortment of colorful vegetables.



Squid Stuffed with Spinach

from
The California Seafood Cookbook
Serves 4

- 2 pounds large squid, cleaned for stuffing
- 2 Tablespoons olive oil
- 1 medium yellow onion, chopped
- ½ pound spinach, washed, drained, stems removed and leaves chopped
- ¼ cup bread crumbs
- 1½ ounces Pernod or other anise liqueur
- Salt and pepper to taste
- 2 Tablespoons olive oil
- 1 cup cream

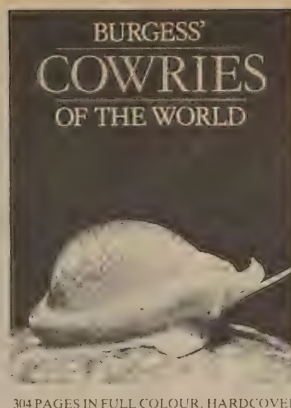
Chop the tentacles and set aside.

Saute the onions in olive oil until soft. Add the spinach and cook until wilted. Add the tentacles and bread crumbs. Saute for 2 minutes. Add half the Pernod and remove from the heat. (It is best to let the stuffing cool to room temperature before adding it to the squid. If this is impossible, make the stuffing and stuff the squid immediately before cooking.) Stuff the squid loosely with the spinach mixture, using a pastry bag, small spoon or your fingers. Seal each with a toothpick.

Heat 2 tablespoons of olive oil in a skillet large enough to hold all the squid in one layer. Add the squid and saute until the bodies are opaque, about 4 minutes. Remove to a heated serving dish. Deglaze the pan with the remaining Pernod. Add the cream, turn up the heat, and reduce by two-thirds. Return the squid to the skillet to reheat.

Arrange the squid on a warm platter, removing the toothpicks in the kitchen if desired. Pour the sauce over and serve.

Thanks to Kathy Ehnebuske & Bernice Kagan, Co-op, 811 "I" Street, Arcata, CA 95521, for the squid recipes and book review on pages 20 and 21.



304 PAGES IN FULL COLOUR, HARDCOVER

The cowrie animal and its habits, as well as the shells, is the subject of this book by the author of *The Living Cowries*, C.M. Burgess. Over 200 are discussed — species, distribution and synonymy — all are illustrated in full colour of which over 150 show the living animal. In addition, there are 18 plates showing significant variations within a species, two plates showing species described since 1970, and schematic drawings of conchological and anatomical characters of the cowries.



THE SHELL CONNECTION

PO BOX 651
BETHEL PARK PA 15102 USA

Bonnie Christofel
Phone 412-854-3148



This is a second sample from our latest list. We have mostly marine specimen shells; also fossils and land snails. Our motto: "Where value and quality meet." Free lists available. We buy, sell and trade worldwide. If you wish to order shells, please send full payment. You will be billed for postage. Orders over \$50 deduct 10%. Some special buys are indicated by an *.

GENUS	SPECIES	SIZE	GRADE	PRICE
CONUS	luteus var nucleus Ave, red or brown, Philippines	15mm+	F	28.00
*	"milne Edwardsi Jous, w/o, beauty, tiny flow, Maldives	73mm	F++	250.00
"	scitulus algoensis, live, striking brown/white, S Afr.	22mm+	F/G	14.00
"	trochulus Ave, lovely lavender, Cape Verde Is.	29mm+	F/F+	9.00
CYPRAEA	owenii Sow, dark, grey/brown, Seychelles	17mm+	G	55.00
"	plata Gray, dark, elongate, Cape Verde Is.	24mm+	F+/G	22.50
*	"purpuraceoventralis Sch, gorgeous, Ascension Is.	20mm+	G	21.00
"	viricolor Gata, inflated, expanded margin, N Aust.	17mm+	G	34.00
MARGINELLA	paragrandis Clover, live, lovely pink/white, Oman	18mm+	G	37.00
"	strigata Dill, grey/orange base, Andaman Sea	35mm+	F+/G	1.75
NITIDA	cadaverosa Ave, white/tan, brown apices, Mauritius	45mm+	G	1.50
*MUREX	octogonus QSG, w/o, brown or tan, New Zealand	34mm+	F+	17.00
*	"porelegens Vokes, w/o, beautiful, Puerto Rico	65mm+	F+	20.00
"	trunculus L, w/o, clean, good sculpture, Portugal	53mm+	F/F+	1.50
NASSARIUS	sufflatus Gould, w/o, Japan	23mm	G	.75
NERITREMA	atkinsi Atkins, brown, Japan	10mm+	F-	.75
OLIVA	porphyria L, striking pink/brown tints, W Mexico	82mm+	F+/G	9.00
OLIVANCILLARIA	vesicae vesicae Gmel, large, Brazil	47mm+	F+/G	3.50
PRIMOVULA	spelta Lam, slim, yellow, Italy	11mm+	F+/G	5.00
PSEUDOSINIA	carnea Polrat, pale to dark pink, Italy	10mm+	G	3.00
RANELLA	gigantea Lam, w/o, large, tips off, Portugal	135mm+	F	8.00
STRONCHUS	goliath Sch, w/o, w/perio, great lip, Brazil	300mm	F	110.00
"	haemulonum Sow, w/o, lovely jewel, Mauritius	13mm	G	40.00
"	plicatus gibboidi Sow, short body whorl, Nicobar Is.	27mm	G	3.00
TERESA	anilla Rod, slender, golden brown, Philippines	24mm+	F/F+	3.25
"	argus Hinds, tan, pale spots, Mauritius	52mm+	F+/G	1.50
"	babylonica Lam, great sculpture, peach/tan, Mauritius	44mm+	F+/G	1.75
*	"duplicata L, large and shiny, India	64mm+	F/F+	1.25
"	raphanula Lam, tan/orange/brown, "	45mm+	F++/G	1.75
"	cancelata Lam, attractive sculpture, Thailand	29mm+	F+	3.50
"	fusus L, w/o, fantastic siphons, Philippines	246mm+	F	6.50
TRIVIA	adriatica Mont, cute, tan/pink, Italy	8mm+	G	2.25
"	monacha deCosta, pink with brown spots, England	9mm+	F	1.50
"	pediculus L, live, pink/grey/brown spots, Florida	10mm+	G	1.00
VEXILLUM	reginae Sow, striking orange/black/white bands, PI	60mm+	F+/G	8.00
"	rubrocincta HGC, stunning red/black, Solomon Is.	24mm+	G	11.00
"	tylosiana Sow, lovely, Indonesia	52mm+	F	8.50
*	"vulpecula L, black form, Indonesia	40mm+	F+/G	4.00
*VOLUTA	arabulana Light, w/o, great color, rare, Maldives	62mm	F	115.00
"	cylindroformis Sow, w/o, live, good color, Bahamas	10mm+	F/F+	22.50
"	demaria Weaver, a beauty, W Australia	25mm	G	30.00
"	dufrenoyi Don, orange aperture, nice glaze, Brazil	116mm+	F	8.50
"	loris Val, peach, dark lines, Nicobar Is.	67mm+	F+	22.50
"	olls L, w/perio, large and nice, Portugal	103mm+	F/F+	7.50
GLOSSUS	humulus L, some w/perio, unusual coiled umbo, Italy	61mm+	F	4.50
GLYCYMERIS	glycymeris L, striking pattern, beach, England	30mm+	F	1.00
*PECTEN	gammulata Ave, variable, lovely shades, New Zealand	12mm+	F/G	9.00
SPONDYLUS	gaderopus L, maroon, good apices, Italy	60mm+	F-	5.50

Seacomber Publications
P.O. Box 5683
Orlando, Florida 32855
United States of America

I enclose herewith a cheque to the
value of \$ for

..... copy(ies) fully leatherbound
@ \$300 each

..... copy(ies) half leatherbound
@ \$225 each

..... copy(ies) normal edition
@ \$95 each.

Please add \$8 for postage

Name

Address

Signature

If a resident of the United States of America and you wish to order your copy on a credit card*, please complete the following:
Credit Card Account No.



*MasterCard, American Express

Southwest Florida Conchologist Society



From William Shaw, Recording Secretary, The Southwest Florida Conchologist Society, Inc.:
Dear Mr. Long:

Attached is a summary of the categories and winners in our club's Shell Show held on January 17, 18 and 19 at the Fort Myers Exhibition Hall. ...

The judges for the scientific divisions of the show were R. Tucker Abbott and William Lyons. The judges for the artistic divisions were Cecelia Abbott and Anne Joffee.

We had an excellent show this year and the overall quality of the exhibits was unusually high. The three entries in Category C, One Large Family, of Division III, World-wide Marine Shells, were of special interest because the judges agreed that all three were of such outstanding quality that it was difficult to choose a winner.

Division X, S.W.F.C.S. Masters Division, is unique, I believe, among U.S. shell shows. Only exhibits which have previously won any one of the top three shell show awards (C.O.A., DuPont, and the Smithsonian) in any U.S. shell show are eligible for entry in this division. The three entries in this division were also of outstanding quality. ...

List of categories, entries, and award winners in the 19th annual shell show of the Southwest Florida Conchologist Society at the Exhibition Hall, Fort Myers, Florida, January 17, 18 and 19, 1986.

Division I. Educational. One entry: Charles and Vi Hertweck, "Do You Know?"

The theme of each of 16 cases was to ask the viewer if he knows some interesting fact about mollusk life that is not known generally, and illustrates the answer with actual specimens of mollusks and with pictures. For example, in one case the question is "Do you know that the Sea Hare is a mollusk?" Color photographs of live Sea Hares (*Aplysia*) are shown beside actual specimens of the small internal "shell" that looks more like a large fish-scale than a shell, along with printed information about the species. Awarded the DuPont trophy.

Division II. Marine Shells (Florida & Caribbean)

Category A. One region, self-collected. Two entries.

Entry #1. Don Moody. 12 cases entitled "Down in the Dumps: Shelling at the Scallop Dumps of Cape Canaveral." Included specimens of 42 of the more interesting of the mollusk species found at the great dumps near Cape Canaveral where are discarded the shells left after processing by the scallop fleet that operates out of Port Canaveral. The exhibit included interesting printed information about the dumps and the shells to be found there. Awarded the Shell Factory Trophy, for the outstanding exhibit of marine shells of the Florida & Caribbean area. Entry #2. Betty & Al Karius. 4 cases of Florida shells. Awarded second place.

Category B. One region, any source. One entry: Betty Hamilton. 6 cases of Florida shells entitled "Evolution of an Exhibitor, 1981-1985," showing the progress as a collector and exhibitor from a non-winning exhibitor to a trophy-winner. Awarded a blue ribbon.

Category C. One family. No entries.

Category D. One genus. No entries.

Category E. One species. One entry: Barbara & Rob Masino. 3 cases of beautiful specimens of the Lion's Paw, *Lyropecten nodosus*. Awarded a blue ribbon and a Special Merit Award (Green Rosette). Also awarded a Purple Rosette for Shell of the Show for a large yellow pair of Lion's Paws in the exhibit.

Category F. Miniatures. No entries.

Division III. World-wide Marine Shells.

Category A. World-wide. No entries.

Category B. One region (other than Florida & Caribbean). No entries.

Category C. One large family. Three entries:

Entry #1. Al Bergman. 19 cases entitled "Around the World in Cones." Included 1456 specimens of 457 species, sub-species and forms of CONIDAE, including almost all of those accepted as valid, and most of the rare species. The exhibit included detailed data on each species and information about each of the regions into which the exhibit was divided. Awarded a blue ribbon and the C.O.A. trophy.

Entry #2. John & Barbara Vaughan. 15 cases of STROMBIDAE containing 465 specimens of 107 species, sub-species and forms, with detailed data. (The judges agreed that the exhibit represented as complete coverage of the family as is possible.) Awarded second place.

Entry #3. Chip & Edie Chippeaux. 18 cases of CYMATIDAE, with 403 specimens of 140 species, representing about 80% of the valid species. Awarded third place. Also won a Special Merit Award (Green Rosette). Category D. One small family. One entry: George Runkle. 2 cases of OLIVIDAE. Awarded third place. (No first or second.)

Category E. One genus. One entry: Sony Ochsner. 4 cases of *Chicoreus*. Awarded the blue ribbon.

Category F. One species. One entry: Janet & Bill Paddison. One case of 5 specimens of a Volute, *Amoria grayi*. Awarded a blue ribbon.

Category G. Miniatures. No entries.

Category H. Beautiful shells, any source. Two entries.

Entry #1. Virginia Lee. 8 cases of gem specimens of beautiful shells. Awarded first place.

Entry #2. Joy Nilson. One case of "The True Heart Cockle," *Corculum cardissa*, showing variations in color & pattern of 23 specimens. Awarded third place. (No second place.)

Category I. Self-collected, except Florida & Caribbean. One entry: Anna Marie & George Nyquist, 4 cases, "Shelling in Fiji." Awarded a blue ribbon.

Category J. Shell stamps with mollusks. One entry: Joy Nilson. 3 cases of the shell stamps issued by the U.S. Postal Service in 1985, alongside the specimens of the shells. An outstanding feature of the exhibit was a series of 24 fine specimens of the Frilled Dogwinkle, showing the great variation in form & color of the species. Awarded a blue ribbon.

Division IV. Land and Freshwater Shells.

Category A. World-wide, any source. One entry: Joy Nilson. 5 cases of U.S. freshwater bivalves, with examples of buttons made from certain species when the shell-button industry thrived in the U.S., before the advent of plastic buttons. Awarded a blue ribbon.

Category B. One region, any source. No entries.

Category C. One family, any source. No entries.

Category D. Self-collected, any area. No entries.

Division V. Fossil Shells.

Category A. World-wide. One entry: Helen Asher. 8 cases of fossils, with explanatory printed data. Awarded a red ribbon. (No blue ribbon.)

Category B. Florida. One entry: Betty Lawson. 4 cases of fossil shells from the large Macasphalt quarry near Sarasota. Awarded the blue ribbon.

Division VI. Adult beginners.

Category A. World-wide marine, any source. No entries.

Category B. Florida marine, any source. No entries.

Category C. Florida marine, self-collected. No entries.

Category D. Land and freshwater shells, any area, any source. No entries.

Division VII. Students (Florida Shells). No entries.

Division VIII. Marine Fauna (other than Mollusca). Two entries.

Entry #1. LaVerne Runkle. 7 cases of Sharks' Teeth self-collected at the famous Sharks' Teeth Beach at Venice, Florida. Awarded first place.

Entry #2. Joy Nilson. One small case of a Long-clawed Hermit Crab, *Pagurus longicarpus*, in a Philippi's Nutmeg *Trigonostoma tenerum*. Awarded third place. (No second place.)

Division IX. Popourri. 3 entries.

Entry #1. Mary & Bart Zanarini. Two cases of albino gastropods. Awarded first place.

Entry #2. Ruth Love. A large *Strombus gigas* covered with fire coral caught on a fishing pole at Marathon Key in the Florida Keys. Awarded second place.

Entry #3. Joy Nilson. A tiny Cuban gastropod, *Blaesospira echinus*. Awarded third place.

Division X. Masters Trophy, Scientific Divisions. Three entries.

Entry #1. Sue & Bill Vaughan. "Living Mollusks from Around the World." 8 cases of shells, plus a large simulated aquarium showing shells in their "natural" habitats at various ocean depths, along with large display panels of color photographs of living shells, and a video cassette with a slide program of color photos of living shells running continuously throughout the show, with audio commentary on each shell by Bill Vaughan. Awarded the Masters Trophy.

Entry #2. Maryellen and Olin Bell. "Marine Mollusca -- The Animal/Shell/Taxonomy," 50 linear feet of display with specimens of 195 shell families, showing details of the anatomy, construction, development, etc., of mollusks, with the actual specimens. This exhibit won the DuPont Trophy at the S.W.F.C.S. Shell Show in January, 1985, and the C.O.A. Trophy at the Sarasota Shell Show in February, 1985.

Entry #3. Edith Ochsner. 3 cases of shells and descriptive material in the sub-family Simniinae. This exhibit won the C.O.A. trophy in the Marco Island, Florida, Shell Show in 1984.

William Shaw, 3900 Villmoor Lane, S.W., Fort Myers, Florida 33907

PHILLIP W. CLOVER

tel 707-996-6960

P.O. BOX 736
KENWOOD CA. 95452



DEALER IN WORLD WIDE
SPECIMEN SEASHELLS, SPECIALIZING IN
RARE CYPRAEA, CONUS, VOLUTA AND
MUREX. ALSO CURRENT AND OUT OF PRINT
SHELL BOOKS. FREE PRICE LISTS ON
REQUEST. MAIL ORDERS SINCE 1960

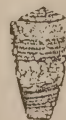
Recently described



Lyria leonardi Emerson, 1985
Photo by Marty Gill



Lyria russjenseni Emerson, 1985
Photo by Marty Gill



Tom Shepherd

Specimen Sea Shells
2222 Beech Street
Virginia Beach, VA 23451

Free Price List Upon Request

SHELLS and CORALS



77 UNION STREET
NEWTON CENTRE MASSACHUSETTS 02159
617-244-1036



PERSONAL NOTES

From Stu Lillico: Have been meaning to write you for some time. As an editor, you will recognize my explanation that I never seem to have time for personal correspondence.

About 10 years ago, the H[awaiian] M[alacological] S[ociety] Directors adopted a policy of not exchanging (for other publications). In the case of S&SL, of course we want to receive it, and a subscription check is somewhere in the pipeline. I already have a personal subscription, which I plan to continue.

We have been following your ups and downs with interest. I imagine you will be getting out of newsprint in due course. I find it a bit offputting. A glossy (or at least white) paper would look more impressive. The format rather appeals to me. S&SL can't easily be mistaken for any other shell paper -- and that's good. As one editor to another (here I go again), I suggest a bolder headline style. Can your computer produce? With the present gray newsprint, the pages really don't have the contrast that the contents deserve.

I hope to attend the AMU meeting in Monterey. If I make it, perhaps I can make a quick visit to Bayside for a chance to talk shop. My wife and I are planning to visit Australia and New Zealand in April, on what I laughingly call a business trip. - Stu Lillico, Editor, Hawaiian Shell News, P.O. Box 10391, Honolulu, HI 96816

From Peter L. Haaker: "I received a call from Jack Engle, Director of the Channel Islands Research Program at the Catalina Marine Science Center. He has come up with an answer to my "What is it?" photo that appeared in the Volume 17, Number 4 *Shells and Sea Life*.

Jack is 95 percent certain that the goblet shaped object is an egg capsule of *Fusinus kobelti*, which occurs relatively commonly in southern California.

On another matter... the new format for *Shells and Sea Life*. I understand that the old format was expensive, and I can sympathize with you wanting to get back on schedule. But I believe you are going to lose articles and papers of a serious nature because of your new newsprint format. The new format does not convey the feeling of seriousness, or permanence that should be striven for in even quasi-scientific journals. Nor does the new format store well. I hope you will soon consider going back to the Volume 17 type format, even if you must cut back on much of the color. [ed. - I will return to the volume 17 type format as soon as a minimum of 2,500 subscribers agree to pay a minimum of \$75 per year for subscriptions. Any lesser amount would be unable to support the costs involved with ANY color. I need additional equipment to keep improving this format and will appreciate any donations toward that end. The first step, after we are on schedule and have many more subscribers, will be to improve the whiteness and durability of the paper we use for printing.] - Peter L. Haaker, Marine Biologist, California State Fisheries Laboratory, 1301 W. 12th Street, Long Beach, CA 90813.

From Tom Shepherd: Here is the information gleaned from the questionnaire. ... 58% of respondents belong to a shell club. The number of shells in the average collection was 1,522. The low number was 44. Two respondents in the United States have 7,000 or more shells in their collection. One European has 10,000 shells in his collection.

The groups collected in order of popularity: *Cypraea*, *Conus*, *Pecten*, *Strombus*, *Murex*, *Voluta*, *Oliva*, fossils, then *Epitonium*, *Harpa*, *Lambis*, and *Spondylus* listed equally, then *Marginella*, miters and *Cymatium* listed equally, then HALIOTIDAE, *Xenophorae*, *Cassia* and *Bursa*, followed by everything else.

Fifty-three percent expressed an interest in freaks, 64% expressed an interest in shells from unusual locations. ... I don't know if the information would hold true for the majority or not. My gut feeling is that it would.... - Tom Shepherd, Specimen Shell Dealer, 2222 Beech St., Virginia Beach, VA 23451

From R. C. Willan: I'm coming to the Opisthobranch Symposium in July [A.M.U.], so hope to meet you there. P.S. I was elected President of the Malacological Society [of Australia] in July last year. Only now I realize how much time is required to run a large society. - Dr. R.C. Willan, Zoology Department, University of Queensland, St. Lucia, Brisbane, Queensland, Australia 4067

SPECIAL

SUBSCRIPTION SPECIAL - Students, Science Teachers & Senior Citizens
\$12 off the regular rates (net \$12 US, \$18 foreign, \$28 airmail). Offer expires April 15, 1986

SHELLS and SEA LIFE, 1701 Hyland St., Bayside, CA 95524 **SUBSCRIPTION FORM**

___ 12 months US Zip Code - \$24
___ 12 months Foreign - \$30
___ 12 months Air Mail - \$40
___ Free sample copy

Check one

Phone No. () _____

NAME _____

(if using credit card, spell name exactly as on card)

DATE _____

STREET ADDRESS _____

CITY, STATE (COUNTRY), POST CODE _____

INTERESTS _____

Amount enclosed _____ or charge my MasterCard _____ Visa _____ No. _____

Signature _____

You must return this form or a photocopy of this form with your order.

If you do NOT wish your name to appear in our directory, please check here _____

Expiration Date _____



Directory of Publications

We will list currently published periodicals of interest to our readers here as time and space permit. Where we have information on subscription rates and order addresses we will give it but, please verify with the publishers as rates are subject to frequent changes. Publications received by the editor will be reviewed for inclusion in this section and in the annual directory.

AMU News published by the American Malacological Union, Corresponding Secretary, Paula M. Mikkelsen, Harbor Branch Foundation, Inc., RR 1, Box 196, Fort Pierce, FL 33450. Published quarterly along with the *Bulletin* and available with membership. Rates: Regular \$20; Corresponding (outside Western Hemisphere) \$23 surface, \$26 air; Student \$15; Affiliate (institutional) \$22 - \$28. Format: 215 x 280 mm, about 16 pages per issue, corner-stapled.

Argonata, The International Journal of Malacology. Published by Associazione Malacologica Internazionale (A.M.I.), Editor, Roberto Uboldi. English and Italian parallel edition. Published in 6 numbers per year starting, 1985. Number 1, separate, and Nos. 2-3 together. 60 pages in the first 3 numbers with excellent color. Format 210 x 295 mm, saddle-stitched. Rates: Seamail \$16; Airmail: Europe, Americas, Asia, Africa \$20; Australia & Pacific \$23 per 6 numbers.

Australian Shell News. Published quarterly by the Malacological Society of Australia. Format: 190 x 255 mm, 8-12 pages per issue. Provided along with the annual *Journal of the Malacological Society of Australia* for the annual membership fee of A\$13.

Gloria Maris tijdschrift uitgegeven door de Belgische Vereniging voor Conchyliologie V.Z.W., published bimonthly, by the Belgian society for conchology. Format: 150 x 215mm, about 28 pages per issue. Subscription \$12 US to the Belgian Society for Conchology, 610-4465950-64 Handelsbank, Antwerp, Belgium. Bank costs must be paid by the applicant. If preferred, you may simply send \$12 to S&SL and we will handle the subscription. Allow at least 8 weeks for the subscription to start.

Hawaiian Shell News. An educational publication of the Hawaiian Malacological Society, P.O. Box 10391, Honolulu, HI 96816. Published monthly, 8-16 pages per issue with color 2-3 times per year. Format 215 x 280 mm, loose. Rates: First Class \$20; Airmail \$24.50 to 29; Bulk mail to US Zip codes \$16.

Iberus, Revista de la Sociedad Espanola de Malacologia. Annual volume published by the Sociedad Espanola de Malacologia, c/o Museo Nacional de Ciencias Naturales, P.O. de la Castellana, 80 Madrid 6, Spain. Format: 170 x 242 mm, volume 4 (1984) 136 pages, perfectbound. At last word, the volume was available by airmail for \$20 per year.

Informativo SBM. Published by the Sociedade Brasileira de Malacologia, Departamento de Zoologia, Instituto de Biotecnologia, U.S.P., C.P. 20.520, CEP 01000, Sao Paulo-SP, Brazil. Published monthly. Editor Kaoru Hiroki. Portuguese language. Format 150 x 210 mm, about 20 pages per issue, 1 color plate. No pricing information available.

Journal of the Malacological Society of Australia. Published by the Malacological Society of Australia, c/o Queensland Museum, Gregory Terrace, Fortitude Valley, Queensland 4006, Australia. Format: 175 x 245 mm, side-stitched and wrap cover, about 96p. per issue and 4 issues per

Journal of the Malacological Society of Australia. Published by the Malacological Society of Australia, c/o Queensland Museum, Gregory Terrace, Fortitude Valley, Queensland 4006, Australia. Format: 175 x 245 mm, side-stitched and wrap cover, about 96p. per issue and 4 issues per volume. Each year includes 4 issues (usually over a two-year period). Rates: A\$13 per year which includes the *Journal* and *Australian Shell News*. *Shells and Sea Life* is a subscription agent.

Keppel Bay Tidings. Published by the Keppel Bay Shell Club, P.O. Box 5166, Rockhampton Mail Centre, Queensland, 4702. Quarterly available with membership in the Keppel Bay Shell Club. A\$15 per year, airmail also available. Format 220 x 280 mm, 8 pages per issue. Excellent halftone illustrations.

La Conchiglia, The Shell. Published by Mrs. Kety Nicolay, Via C. Federici, 1, 00147 ROMA (Italy). English or Italian editions. Originally a monthly publication, two numbers included in each issue. Normally 6 issues per year, each 32 pages with excellent color. Format 210 x 300 mm, saddle-stitched. Rates: Seamail: US \$17 anywhere in the world; Airmail: N. & S. America, Africa & Asia \$20, Australia & Polynesia \$27 per year. *Shells and Sea Life* acts as subscription agent.

Las Conchas, Meeting Notice and Newsletter of Pacific Shell Club. Monthly publication edited by John T. Boyd, 11813 Morning Ave., Downey, CA 90241. Available with club membership. No rates available. Format: 215 x 280 mm, about 8 pages per month.

Rossiniana, Bulletin de l'Association Conchyliologique de Nouvelle-Caledonie. B.P. 146, 18, rue Henri-Bonneaud, Noumea, New Caledonia. French and English text. Quarterly, 32 pages per issue, color in part. Format 210 x 300 mm, saddle-stitched. Rates: Airmail \$20 or 110 FrF. Checks not on New Caledonian bank in francs must add \$8. *Shells and Sea Life* is a subscription agent.

Southwestern Malacological Society, Monthly Meeting Notice and Newsletter. Published about 10 times per year, Editor, Nancy Decker, c/o 3846 E. Highland Ave., Phoenix, AZ 85018. Rates: \$3 per year with club membership. Format: 215 x 280 mm, 4 pages per month.

Suncoast Shorelines. Published bi-monthly by the Suncoast Conchologists, Editor Bob Pierson, P.O. Box 1564, Palm Harbor, FL 34273-1564. format 215 x 280 mm, about 12 pages per issue. Rates: \$10 with membership.

The Connoisseur of seashells. Published by Dr. Luigi Raybaudi Massilia, P.O. Box 561, ROMA (00187) Italy. English and Italian parallel edition. Published bimonthly, 6 numbers per year. Issue no. 5 (September, 1985) is 36 pages with excellent color. Format 200 x 265 mm, saddle-stitched. Rates: Surface \$18; Airmail \$24; Sample copy \$4; Backnumber \$5. *The Connoisseur* is primarily a sales catalog for specimen seashells.

The Festivus. Publication of the San Diego Shell Club, Editor, Carole M. Hertz, 3883 Mt. Blackburn Ave., San Diego, CA 92111. Issued monthly except December. Format: 215 x 280 mm, 8-16 pages per issue. Membership and subscription \$7 in US; \$10 overseas surface mail. Loose sheets, corner stapled. Halftone illustrations.

The Nautilus, published by American Malacologists, Inc., P.O. Box 2255, Melbourne, FL 32902. Editor: R. Tucker Abbott. Quarterly publication. Rates: \$15 US; \$18 foreign; \$20 institutional. Format: 215 x 265 mm, 36-48 pages per issue. Saddle-stitched with heavy cover. Includes halftones and occasionally color.

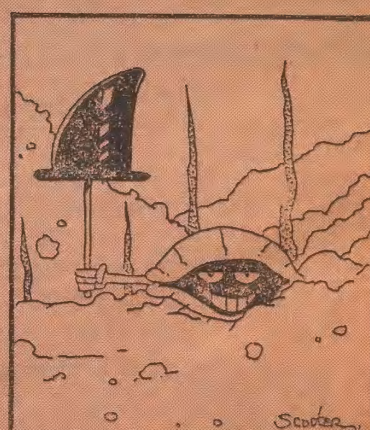
The Slit Shell. Newsletter of the Indianapolis Shell Club, Paula D. Knoebel, Editor, 3846 Woodridge Court, Plainfield, IN 46168. Publication sent to members of the club.

Tide-ings, The newsletter of the Crown Point Shell Collectors Study Group, Inc. Newsletter editor, Carol Bodine, Box 462, Crown Point, IN 46307. 712 numbers per year with club membership. Format: 215 x 280 mm, 6 pages, corner stapled.

Underwater The Diver's Journal. Published by Neville Coleman's Sea Australia Productions Pty. Ltd., P.O. Box 419, Caringbah, NSW 2229, Australia. English language quarterly. Issue No. 14 (3rd Quarter 1985) is 84 pages with the finest color I have seen anywhere. Includes a lot of good articles and photos on the marine life of Australian waters. Subscriptions: in Australia A\$18; elsewhere A\$25 per year.

The Veliger. ISSN 0042-3211, A quarterly published by the California Malacozoological Society, Inc., c/o Department of Zoology, University of California, Berkeley, California 94720. Format 215 x 280mm. Subscription rates for volume 28 are \$22 for affiliate members and \$44 for institutions and non-members. Overseas postage is \$3 additional.

* * * * *



Please scan
under barcode:

39088012949749